MASSACHUSETTS PLOUGHMAN

DEVOTED TO AGRICULTURE, HORTICULTURE, THE FARM AND THE GARDEN.

AND NEW ENGLAND AGRICULTURE

THE FIRESIDE, RURAL LIFE, LITERATURE, USEFUL ARTS, NEWS, &c.

JOURNAL OF

VOL. LXI. - NO. 22 BOSTON, MASS., SATURDAY, FEBRUARY 22 1902 WHOLE NO. 3135

MASSACHUSETTS PLOUGHMAN AND NEW ENGLAND JOURNAL OF AGRICULTURE

Official Organ of the N. E. Agricultural Society.

MASSACHUSETTS PLOUGHMAN PUB. CO.

Publishers and Proprietors.

ISSUED WEEKLY AT

NO. 3 STATE STREET,

Boston, Mass.

TERMS:

...num, in advance, $2.50 if not paid in ... postage free. Single copies 5 cents. ... sending contributions to THE PLOUGHMAN ... its columns must sign their name, not ... for publication, but as a guarantee of ... otherwise they will be consigned to the ... All matter intended for publication ... written on note size paper, with ink, and ... one side.

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Entered as second-class mail matter.

Agricultural.

The Horses for the Farm.

When the outery came some years ago that the bicycle, the trolley car and the automobile, if it was ever perfected, would so reduce the demand for horses that there would be no profit in raising them, we tried to persuade the farmers that there would be little danger of such a result any more than there was when the railroads were beginning to be built before the war of the Rebellion commenced. But not all the horse breeders read what we wrote, and probably not many of those who did believed that we could see farther into the future than they could, even if we had the light of fifty years experience to guide us.

Many of the agricultural papers, and nearly all the others, solemnly advised the farmer to stop raising colts unless they had a very sure prospect of a two-minute or at least a 2.20 trotter or pacer. Good brood mares were sent to the cities to be sold for trucking or other teaming purposes. Good stallions were castrated, and in some cases, if we can believe the papers published in the breeding sections, good strong colts were killed because "it would not pay to raise them." A few refused to be led to slaying their colts, and have since found that they were profitable.

Now there has come another fad or craze, with which we have no more sympathy, and which we think does not deserve a line in its favor in an agricultural paper published in the Eastern States, which is the advocacy of the heavy draft horse, Percheron, Clydesdale or Shire horses, from 1600 to 1800 pounds up to the weight of a Jumbo, if such a one can be found. This is an English fad, as there in the large cities the brewers and others like to have such enormous beasts driven through the city as an advertisement of their trade, drawing on a level, paved street huge piles of casks and boxes, the weight of which the looker-on estimates at a tremendous amount. Yet we have been assured by those who saw some of those loads built up that there were nearly as many empty casks as full ones in them.

Such horses serve excellently well in the heavy trucking of the city. Here is where dead weight, or main strength and awkwardness will count. What would a pair of these 1800 to 2200-pound horses do on a plow or harrow in the spring when their feet sank in the mud almost as deep as the plow? They might not feel the weight of the plow, but they would feel their own weight before night. With a pair of the little Vermont Morgans, the two of them not as heavy as one of those big fellows, we could draw a heavier load through a miry place or a snowdrift than we ever saw a pair of those big ones draw in a bad place.

And when on the road they could trot eight or ten miles an hour or walk four or five miles on a dirt road, not for one hour only, but for five or six hours in a day for as many days as there are in the week, and that not in a rubber-tired sulky, but a good honest made farm wagon with from two to four persons in it.

The ... the kind of horses that used to be bred ... Vermont, and some of them not quite so compactly built, in Maine, and some ... from a little coarser built came here from ... ia, with legs about as large and hairy ... the Clydes. None of them ever ... or crooked knees or tender ... had decent usage, for they did ... the street as if they had taken ... to pound down the paving ...

The ... of these horses cannot be ... isted. There must be some ... have good brood mares yet, ... be a few stallions that have ... blood in them. If such can be ... ture a prediction that in five ... will be in demand, and in ten ... popular on our New England ... hilly roads than the heaviest ... horse that may be offered at ... les in the city. Do not make ... trying to put too much weight ... trying to breed from the heavy ... too long legs on them in the ... two-minute horse, but try to ... honest, well-built horse of ... pounds, with the disposition ... willingness of the ox and the ... the mule.

... can get a horse that he can ... y-five to thirty-five years, and ... keeps him the better he will ... bought one of that sort in ... be nine years old, kept him ... and then sold him to a man who ... drove almost daily for more ... five years.

The "... issed Knight" is an interesting figure in ... odern Salem. Presumably his ... visor is never up.

Live Stock Notes.

The Sheep Breeder cautions its readers against feeding cottonseed meal to ewes with lamb, as the root of the plant has the effect of preventing pregnancy or causing abortion, and usually the same quality exists in all the plant as is predominant in any of its parts, as far as medicinal qualities are concerned. While we do not exactly believe this last statement, and have fed cottonseed meal to cows nearly every day for years without having a case of abortion, we can say that we do not think cottonseed meal is very good as food for sheep. Nor would we advocate linseed meal, although that or oil cake is a favorite food with those who breed fancy sheep, especially those in England. Neither do we accept their statement that corn is the best feed for ewes with lambs. We prefer wheat bran and oats, though when the price of this is too high for profitable feeding, or when the rough fodder is inferior in quality, we would not hesitate to give from one-third to one-half corn as grain food, reducing the other grain in proportion of two quarts of grain taken away for every quart of corn added. There are cases when more corn may be needed because of the quality of rough feed, and cases where whole grain is not good because of poor teeth, but the owner should know them himself.

The Drovers' Journal says that the average feeder gets about five pounds of beef gain to each bushel of corn fed. We shall dislike that average man soon if he cannot do better. The average farmer makes about ten pounds of pork to the bushel of corn fed, and those who fatten hogs to weigh not more than two hundred pounds do much better than that. We have seen statements that fifteen or sixteen pounds gain for every bushel of corn or its value in other grain, was realized from the day the pig was taken away as weaned until it was killed at about two hundred pounds weight. These cases were usually where some skimmilk was given, and that was figured into the account at about 15 cents per hundred pounds, which we do not think fairly represents its value for feeding to young animals. If we were on the farm again we would buy all the skimmilk we could get clean and sweet at that price, and feed as many calves and pigs as we could take care of, and expect when good grain was fed with it, we should be well paid for our labor by the sale of the young cattle and the pork.

The fact that a white frost has appeared in the fields is not sufficient reason for taking the cattle and sheep out of the pastures, as there may be many places where the ground retains enough warmth to prevent the frost from doing much injury. When grass has been badly frost bitten we think it has lost something of its nutritious quality, though sheep seem to eat it without injury and digest it, which cattle and horses will not do if it forms a very large part of their food. But we would emphatically protest against allowing even sheep to run in the fields while the frost still remains on the grass. It is too much like eating snow or drinking ice water to be wholesome. It chills the digestive organs, and may cause colic or other troubles due to indigestion. Wait until the sun has melted the frost off the grass before letting the sheep into the pastures.

We have read claims for a milk-producing strain of Shorthorn cattle, that produce milk or butter enough in a year to repay the cost of food, and beside bring a good calf each year, valuable for either breeding or feeding purposes. We do not doubt that there are such. And when the skimmilk is used for feeding to calves or pigs this adds something to the value of the Shorthorn, for we think the amount of solids in their milk, other than the butter, is larger than in the milk of those known as the butter breeds. We would place it higher than in that of the Ayrshire, but we know that we could raise a better calf on the skimmilk of a grade Ayrshire or Devon than on that from the Jersey. The milk that is best for butter is not the best for raising calves, whether it is fed as it comes from the cow, or is first skimmed or run through the separator.

Winter Dairy Hints.

There is an old saying that applies at this season of the year that runs as follows:

Half your corn and half your hay,
On Candlemas Day.

This was then considered the middle of winter, as far as the feeding of stock was concerned. There is a good long spell from now until feeding time is over, yet, as the season gets on its last half, it passes quickly away, and hardly before we are aware, spring is with us again.

Besides, this letter may be read where the winters are not so long, and the active work of spring commences much earlier than in the part of the country where the writer lives.

The wise farmer will be on the alert with calculations for another season's campaign well planned, and with a sharp eye on present resources.

If there has no mistake been made there will be plenty of fodder for all the animals through the remainder of the winter.

Some may say that it would be better to pinch stock at the last part of the winter than the first, and this may be true, provided the pinch could not be avoided, but as a rule farmers should not be placed in a position where the pinching process must be gone through with. There should always be the endeavor to keep a just proportion between stock and fodder, so that with good management there need be no fear of scarcity on the one hand or the effects resulting from it on the other.

As the winter nears its close there will be some uneasiness manifest on the part of the animals that have been kept in close quarters, however comfortable, through a long period, and they will require some extra attention to keep them quiet and contented. A little run in the yard in pleasant weather will do them good.

As it comes time for the cows and young animals to shed their coats, which is usually quite early where the stock is well cared for, there will be an itching sensation that is not pleasant to endure. This will be readily noticed in the stables, and more particularly out of doors, in the persevering efforts of the animals to allay it by licking and rubbing themselves. Frequent carding and brushing in the stable will help very much in this matter and be greatly enjoyed by the animals.

Where winter dairying is not strictly followed, many farmers prefer to have their cows come fresh in milk pretty soon after the beginning of the New Year. This being the case, the cows should have good care and feed, that they may be in better condition to make suitable returns when the milking season arrives.

The provident farmer will keep his best quality of hay where it can be had for use when the cows are giving milk, and in other ways endeavor to stimulate them to do their best at the pail.

Owing to the high prices of grain feeds, not as much is being fed this winter as usual, but it will hardly be found to pay to shorten up this important part of the rations to too great an extent, as there would pretty certainly be a loss in the yield of milk and butter. Some care should be exercised in making up the grain feed, to get those kinds that will produce the best results, and yet, perhaps, not be the highest in price.

Another year we may naturally expect a better condition of things in the grain-feeding line. To do the best possible under the circumstances is our part, and we should always put forth our efforts not only for present results, but for the future well-being of ourselves and all under our care. This indicates that the farmer calculates to stay where he is, and make a permanent home for himself, and not like some be ever on the alert to find some other place where he can do a little better. E. R. TOWLE.

Eighty Miles of Free Fruits.

Mr. Samuel W. Allerton, the Chicago millionaire, enjoys the reputation of owning a larger number of farms than any other man in the country. His agricultural holdings comprise thousands of acres of the richest soil in the prairie States. Although his farming is pre-eminently of the practical kind which yields great profits, in one way he allows sentiment to govern him. Along the roads which skirt and traverse his farms are belts of cherry and apple orchards. If these trees were planted in a single file, as close together as good results in bearing would permit, the line would reach eighty miles in length. The incident which accounts for the large number of these trees and the fact that they are set so close to the public highway is of peculiar interest.

When Mr. Allerton was a boy of twelve years his chief source of income was from driving herds of sheep and droves of calves to the Poughkeepsie market, a distance of thirty miles. The trip to the city was made in two days, and he was generally able to get a ride home with some farmers from his neighborhood who has been to market with produce. The bright spots in the pilgrimage, from the viewpoint of the dusty, barefoot drover-boy who trudged behind his flock, were the orchards which were sufficiently near the road for possibilities of free forage, and none of the roadside fruitage was half so tempting to the tired, dust-choked boy as the luscious cherries which dangled from loaded boughs on the farm of an old Quaker, whose place was reached in the heat of the second afternoon of the journey. If convinced that the owner was not near the boy would make a swift raid upon the trees and then eat the fruit at leisure as he trudged along. And he frequently smiled with great satisfaction at the thought that he had not once been seen by the owner.

When returning one day in the wagon of a farmer the boy saw the Quaker standing beside his trees. "Don't you suppose he would let us have a few cherries if you were to ask him?" said the boy.

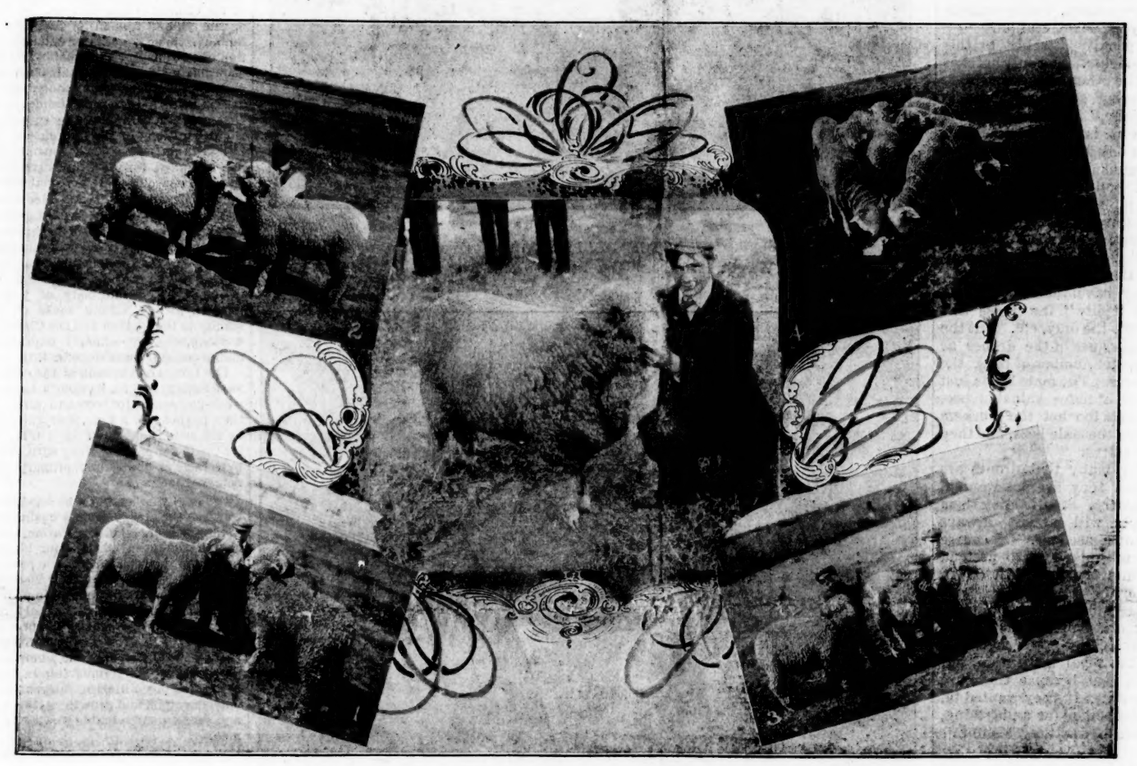
"Of course he would," answered the farmer, who stopped the wagon and laughingly repeated the boy's request to the venerable Friend. The latter looked benevolently serious, placed his hand on the lad's head and inquired calmly:

"Isn't thee the boy that breaks the limbs from my trees?"

There was no way of honorable escape, and Allerton tremblingly admitted the charge.

"Don't thee steal any more," continued the kindly old Quaker, "but just pick thy ll as if thee owned them. Now go and fill thy hat, but do not break the branches."

After telling this story recently to a friend, Mr. Allerton said: "I made up my mind then that when I grew to manhood I would do something to show that I appreciated the lesson that the good old Quaker taught me and the kindness with which it was done. I've planted fully eighty miles of trees in his memory. If he had thrashed me, as I expected him to do when I confessed, there would not have been one of these memorial trees. And the men on my farms understand that any boy is welcome to eat his fill of fruit. That's what the trees are there for."—Saturday Evening Post.



IMPORTED GERMAN AND FRENCH RAMBOUILLETS.

Notes from Washington, D. C.

Algerian-durum wheats—macaroni wheat—is a product to which the Government has been giving attention. Mr. Carl S. Scofield an expert on cereals of the Bureau of Botany of the Department of Agriculture, spent some three months in Algeria and western Europe last year looking into this cereal, and he has been preparing a report on the subject which will be printed for distribution.

Algerian varieties of durum wheat are always grown with autumn planting, but Mr. Scofield thinks most of these varieties will succeed with spring sowing in the northern portion of the Mississippi valley.

"It is important in the beginning," said Mr. Scofield, "to fix a name for any particular variety of this wheat which may prove to be a success in this country, so that it will be universally recognized; farmers will not then be subjected to waste of time and money that follows when the same name is loosely applied to two or three or half a dozen different varieties, each of a different quality and value.

"The chief use of this wheat will be for the manufacture of macaroni and similar paste foods, for it is the only wheat with which a first-grade article of this class can be made. For the manufacture of breakfast foods its high proteid content and its pleasant flavor are likely to recommend it, and it will find a limited use in affording a cheap but nutritious bread in localities where its heavy yield will make it cheaper than ordinary wheat."

Senator Stewart, "the Silver King" of Congress, believes that there is money in dairying. He has established a dairy farm in Virginia of some two thousand acres, on which he has over three hundred well-bred milch cows, and is now working up a large retail trade in the city of Washington. The inducements he offers to new customers are that he gives his cows pure water, clean food, and that the farm is conducted in a sanitary method, a model dairy, and that he offers milk at the prevailing price of eight cents a quart. Pure milk is what Washington is hunting for.

Some striking figures are about to be published by the Department of Agriculture in a bulletin by Dr. George M. Rummel, an expert in the Bureau of Animal Industry.

After reviewing the past and present condition of the horse market, he states the causes of the depression in 1890, first resulting from the abolition of horse cars, followed by the business depression of 1893, and this followed closely by the advent of the bicycle and automobile. The last two features however, it seems, do not affect the horse market so much as one would think, for those who ride the bicycle either cannot afford to own a horse or are temporary patrons of livery stables. As to the automobile, Dr. Rummel states, this is a mechanical age, when one wishes everything to be of a mechanical nature, but the combination of motors and wheels is not in a perfect state, and the fascination of inventions can never supplant permanently the exhilaration of companionship or the inspiration of power that comes from a pull on the ribbons or the grip of the knees in the saddle.

He then reviews the causes of the present excellent condition of the market, primarily caused by the depression when horse breeders, becoming discouraged by the state of the market at that time, discontinued the breeding of high-class horses, so that now there is a scarcity of fine animals. Another reason is the immense growth of the export trade, for while in 1890 only 3501 horses were sent abroad, in 1901 the figures have steadily grown to 82,250 head. The following table of exports shows this growth:

1890	3,501	1896	25,126
1891	3,110	1897	39,532
1892	3,226	1898	51,150
1893	2,967	1899	45,778
1894	5,246	1900	64,722
1895	13,984	1901	82,750

The shipments to Africa are largely responsible for the great increase in 1901, when 37,465 head were shipped to that country alone.

It would seem, therefore, estimating that an animal is marketed at five years of age, an export demand of 80,000 annually requires nearly 400,000 horses to keep up the supply.

Another important reason is the increase of population, with a growing love of a good horse, and the wonderful growth of business, calling for many more horses than were needed for such purposes in the early "'90's."

A portion of the bulletin which, undoubtedly, will be interesting to horse breeders and buyers, is the description of what constitutes a good animal for draft, harness or saddle—drivers, coachers, saddlers.

Will the market hold out? As already stated, the reasons for the present good market are, on the one hand, a diminished supply of the best grades to draw upon, and, on the other hand, a brisk demand with a widened field to supply. So long as these conditions continue prices will rise.

The Census Bureau has issued another of its advance bulletins which in view of the debate over the oleomargarine bill in the House of Representatives is very timely. The bulletin shows that in the ten years ending June, 1900, the number of establishments in the United States engaged in the manufacture of oleomargarine increased from twelve to twenty-four, with a total capital invested of $3,023,646, an increase of 376 per cent. The value of the output was $12,988,525 per annum, an increase of 318 per cent.

These figures, however, do not represent oleomargarine manufactured as a by-product of slaughtering houses and meat-packing establishments, but is the output of those engaged solely in oleo manufacture.

The Division of Publication of the Department of Agriculture is busily engaged these days in preparing the many bulletins sent them for publication by the heads of the various divisions. Among these bulletins is a publication by Mr. M. F. Miller of the Ohio State University on "The Evolution of Reaping Machines."

"In no class of agricultural implements," says Mr. Miller, "has there been a more marked development than in that of grain reapers. This development has taken centuries, not because of such a great number of stages, but because for centuries there was no improvement, the sickle reigning supreme."

A mention is made in history of a hand reaper found among ruins of the stone age in Great Britain. The earliest records seem to be in Egyptian history; a tomb at Thebes, probably built 1400 or 1500 B. C., bears a painting where two men are represented with sickle-like implements. Other paintings of this kind show two distinct methods or modes of reaping.

"The ancient Chinese and Japanese used an implement resembling the sickle, and, strange as it may seem, almost the same thing is used by them today. Even in the Bible, in the Old Testament, the words 'reap' and 'sickle' appear.

"It was for the Americans to devise improved forms of the sickle. The earliest American colonists constructed what is termed the 'American cradle.'"

The bulletin describes the various early English machines. American reapers, harvesters, binders, headers and mowers, showing the evolution from the ancient and even prehistoric ages down to the twentieth century methods of harvesting crops.

GUY. E. MITCHELL.

Connecticut Farm Notes.

Most of the farmers have filled their ice-houses with good fourteen-inch ice, and those who have not will complete the job this week.

Cattle are doing well and hay is holding out better than expected, and most of our farmers could say Candlemas Day that they had half of their hay and half of their wood.

High prices still prevail for hay and potatoes. Apples and cider are both very scarce, and in lots for sale meet with good demand at high prices.

A number of farms will change hands this spring. The Wetmore brothers of the Wetmore Creamery have bought the Horace Burr Farm and will run the same in connection with their creamery and farm. They carry a stock of 150 head of cattle. They recently purchased thirty head of cows from Mr. Pattison of Torrington Centre.

Most of the farmers are either getting up their woodpiles for the coming year, or are hauling saw logs to mill, the recent snow having been a great help for this business.

E. T. SMITH.

Winchester Centre, Ct.

Mr. C. W. Lasell is greatly pleased with the brood mare Letara that he bought at the recent Fasig-Tipton sale. She has had four foals, all of which were sold at good prices at the above sale, and all have shown enough speed to enter the list the coming season. Letara is fast herself and is sixteen hands strong. She was got by Alcantara (2.23), and her dam is Starletta (2.21¼). She is by Starlight 6835, out of the great brood mare Highland Mary, by Seely's American Star. Starletta (2.21¼) is now at William Gregg's farm, The Pines, Andover, Me., and will be mated with Alclayone (2.20¼) this season. She is owned by Kimball C. Atwood, New York city.

Examine the feet of all the colts often. Keep them level and the toes the proper length by using a rasp.

Agricultural.

Dutch-Belted Cattle.

Dutch-belted cattle are without doubt the most perfect illustration of what can be accomplished by careful scientific breeding along color lines. Motley, the Dutch historian, declared them the most wonderful cattle in the world. No other cattle have been so intensely bred. The sharply defined, broad band of white which encircles these cattle in the centre of a coal-black body has become a fixed characteristic.

During the last decade this belt has been bred with great accuracy, and animals can be found at the present day about perfect in marking. The belt, when ideal, should begin a little back of the shoulders and a trifle in front of the hips, extending in a perfect line like appearance around the body. To attain this perfection of belt has taken several centuries of careful selection of animals, the nearest to the set ideal.

In connection with this, symmetry and ideal dairy form have always been in view. The result is that the best specimens of this unique breed combine perfection of belt with fine dairy type and conformation, producing an animal rarely equaled among any of the popular breeds.

Dutch-belted cattle to appear at their best must be seen at home in pasture. On our rocky New Hampshire hillsides their snow-white belts can be seen for miles. A group of fifteen or twenty of them feeding on the green sward presents a picture once seen that is never forgotten. I have often thought what a pleasing addition these cattle would be to New England farms, where the keeping of summer boarders is made an important industry. As an attraction they could not possibly be excelled.

I know of one man who has a large lawn in front of his house, and always through the summer months may be found several of the belted calves gamboling about, their white, even belts showing in beautiful contrast with the green lawn.

These cattle are especially adapted to the retired merchant who returns to the farm where perhaps he spent his youth. As an attraction they will prove untiring. Being of a strong and vigorous constitution, they are easily cared for and not difficult to rear, always proving themselves a thing of beauty and a joy forever. F. R. SANDERS.

Wayback Farm, Laconia, N. H.

A Few Facts About Bees.

How doth the little busy bee
Improve each shining hour?
By hustling 'round for something sweet,
Avoiding all that's sour.
—Mr. Watts.

The bee deserves to be poetically chronicled in a better way than this, but since the above is beyond all doubt the best that has been done for him, it is well to mention it.

Moral development in insect life is found at its lowest ebb when sought for in the bee. The bee lives and moves and has a being for the sole purpose of eating.

It is a common fallacy that bees were created to store honey for mankind and to furnish Mr. Watts a subject with which to humiliate the schoolboy. Bees furnished Hymettus with its raison d'etre—but the bee acted without intention. It might as well have stored up honey in Hoboken, so far as the bee was concerned. With the bee it was hit or miss. It served a classic purpose without meaning to, and historically the bee has never had a day's rest since.

The Greek bee was just like any other bee, and lived to eat itself blind, and not to furnish mankind with an apothegm.

The bee's eyes are bigger than his stomach. He imagines that he can eat all that he stores up. He would think so if there were no man to rob him. Like others who flit from flower to flower, the bee is a hot proposition. He has to be.

Bees are the only living things to which one can point as certain demonstrations of the doctrine of predestination.

While the bee is yet in the egg he is predestined to be a worker, a drone, or a queen, as the queen bee who lays the eggs decides. A bee may strive and strive for a higher life, but if it be born a drone it will have to oaf all its life. There are a great many people who would be satisfied to be thus predestined. But yet there is another side to the question: If a bee is born a worker, it has to work. There are no cakes and ale for a worker bee—for such a one it is all honey. All honey and no quinine is a tasteless life, indeed.

Some bees are fed on the bottle. The statement sounds remarkable, but it is a fact; however, a bee may develop—into a worker, a drone or a queen—it has a host of attendants from the moment it is hatched. Certain of the bees, only a few days old themselves, are selected to rub down the new bee, to feed it, and to initiate it into the ways of a wicked world. A bee knows at a glance what kind of a bee is to be hatched in the different cells, because they put a convex top on those cells which hold the larvæ that shall result in a drone, and concave lids on the cells which contain the workers.

It requires several days longer for a drone to hatch out than it does for a queen or a worker. Thus it will be seen that the drone loafs even before he is hatched. And, en parenthesis, the drones are always he bees.

Most people credit the worker bee with no sex at all, but this is an injustice. The worker bee is a girl bee. It is an undeveloped bee of the female species. Such a bee has no love affairs during its lifetime, and if ever Mohammedanism needed an excuse the worker bee could furnish it. If a worker bee does not believe that if it dies in a good cause it is surrounded by houris during all eternity, it is a poor, miserable blasphemer of a bee, unless it hasn't enough sense left to make a protest against its destiny.

Life must be a demnition grind to the worker bee,—no love, no hope, no perpetuation of the family name; nothing but buzz and eat, make cells with six sides, rub off new bees, feed 'em, monkey about the queen—who puts on more airs than any human queen ever dared or knew how to put on—and sympathize with her in her love affairs.

The queen's love affairs are no puerile matter. It is a fallacy to suppose that the drones are unwelcome in a hive and are subjected to bad treatment. As a matter of fact—like human drones—such bees furnish the real aristocracy of the hive. It is about all they can do—to make love to the queen. Lovemaking to the queen is all out of proportion to her size. When she whistles everything lets go. There is more fuss about it than about an English coronation—and there's not much more in it.

When the queen starts from the hive on the day she feels flirtatious, the whole regiment of drones starts after her. But it is not a question of who catches her, as might be supposed. Bees are wonderfully like women in a good many ways. While the queen may make a lot of effort to get away, so far as the casual observer may think, she slacks up for the right aristocratic loafer, and then buzzes that she is "so surprised," or something to that effect.

However, after this flirtatious period she might be called a worker bee, like the majority of the others, unless a bee's idea of what constitutes work is quite unlike that of anybody's else; because such a bee proceeds to lay something like three thousand eggs per day. Of course this may be mere pastime to a bee, but to most anybody else it looks like work.

A queen bee has no facilities for collecting her own food, and is fed by the worker bees, and under the circumstances it is something to a bee's moral credit that the queen isn't poisoned. A queen bee is a loyal enough bee, after she has once picked out her drone, but maybe that is not much to her credit, because anything engaged in laying three thousand eggs a day can't have much time to look about and get flippant.

Mr. Koch is a good deal behind time with his theory. Those Hymettus bees knew all about it and practiced it. The difference is that bees reverse the order of the treatment. When a queen bee is to be developed there is a bee jelly known to the bees as "royal," which is administered to the larvæ. It is more pungent and stimulating than that food given to the drones or workers, and the sure result is a queen bee. For male bees almost any old food will do.

There is now and then an extraordinary exception to the worker bee rule—and a worker bee takes to laying eggs. It may be supposed that such a bee becomes so mixed up over her own functions that she immediately loses what little sense she was hatched with. One hardly knows what to say of a bee like this. She is in the position that a woman would be in if she should hit something that she threw at, or of a baby who should go to taking care of its mother, or of a man who was suddenly discovered to be without vanity,—in short, wholly outside of himself, and beyond identification.

But there is a penalty attached to this freak bee's achievements. She only hatches out aristocrats. The other bees in the hive, in such untoward event, stuff the embryonic bees with "royal jelly," but all to no purpose. They learn at last that one can't make a silk purse out of a sow's ear, or queens out of the unusual run of things.

In a matter of political economy bees stand or fall upon a platform of reciprocity planks. A community of bees engage in hatching out drones to suit the tastes of queen bees belonging to different communities. The uses of the aristocrat bee are few and futile, yet they have their uses. The principal one is to "jolly" the queen and make her think she's the only, etc. But the bee community makes use of the drones as furnaces. The greater number of bees, the more heat in the hive. The male bee is just as good for fuel as a more valuable bee.

When the place gets too hot the workers just stop supporting the male bees, and they have to get out or starve.

It is supposed by many that drones are stung to death when they are not wanted, but that isn't necessary. Stop feeding them and the aristocrats will almost always sneak off on their own account. Of course if any drone is so misguided as to pretend o take no notice, and try to live it down, they call the janitor.

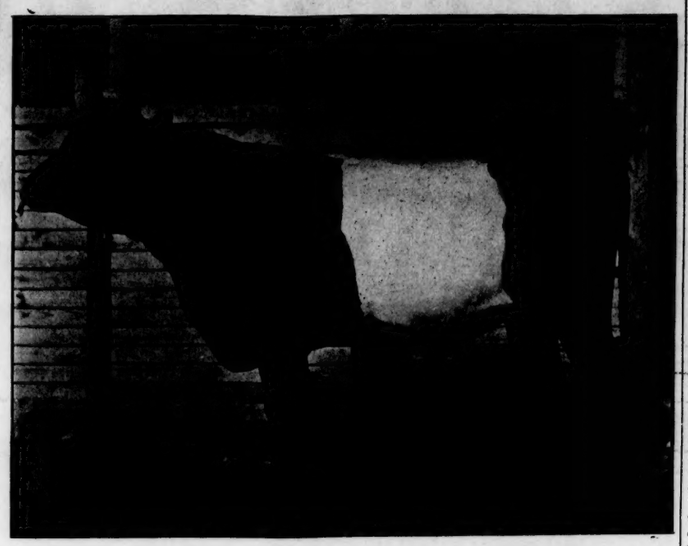
Bee economics are almost as they should be. The laboring class predominates and makes them mighty. They go through a lot of fol-de-rol over the royal institution, but there is no harm in that because there are enough of them to strike if they wanted to, and if they like aristocracy for a plaything, there is no real reason why they shouldn't have it.

Above all things a bee has a mathematical mind. It is a good thing to have, in its business, but it is a limited sort of intelligence, the mathematical one, and a bee's mental horizon is just about the end of the cloverfield, after all. Once something set it going, and it has "gone" ever since. There is no reason to suppose that a bee ever developed from anything less mechanically perfect. Its system of living and having a being is considerably too perfect to admit of such a possibility. A bee was made mathematically correct, and will continue to be so, and will never show indecision or a splendid, delightful uncertainty of action. Thus it must forever exist, devoid of imagination and its joys and horrors, which are the only things that make life worth living to unregenerate, less finished creatures, like dogs and men.

A bee is painfully like a good speller. A good thing for the copy reader, but not calculated necessarily to be a saviour of mankind.

A bee begins to build. He festoons himself in communities. He sits down and sweats wax. Then he chews up the wax. Then he comes out from among them and lays a strip, after precisely the same eternal lines that every bee, since Adam named them, has builded. If one bee should happen to have a strabism the next bee steps along and puts things straight. About a million billion bees go on sweating wax and chewing it up and putting it down and stamping it and making six-cornered holes and eating too much, and disgorging into the holes that it may eat what it don't want some other time, and then man comes along and cleans out the bee hive, and—and—

Who but a discriminating person would be a bee—even to have Mr. Watts write poetry about him?—New York Times.



SWEEPSTAKE DUTCH BELTED BULL AT PAN-AMERICAN AND CHARLESTON EXPOSITIONS.

DUTCH BELTED COW.
Weight 1120 lbs. Milk Record 62 lbs. one day.

GROUP OF DUTCH BELTED CALVES.

AN ANNIVERSARY SERMON.

BY REGINALD HEBER HOWE, D. D.

[A sermon preached by the rector in the Church of Our Saviour, Longwood, Sunday, Feb. 2, 1902, being the twenty-fifth anniversary of his rectorate.]

"Ourselves your servants for Jesus sake."—II. Corinthians iv., 5.

"O Lord, revive thy work in the midst of the years, in the midst of the years make known."—Habakkuk iii., 2.

Twenty-five years ago today I concluded a little more than five years of happy service as rector of Christ Church, Quincy, and on Sunday next, Quinquagesima Sunday, at a summons, which seemed a bidding to a larger work, severing with no little pain ties as sacred as any that we know, entered upon my duties here. The close of this Lord's Day and Saturday next weekday will round out, therefore,—I can hardly believe it,—a quarter century rectorate of the Church of Our Saviour, Longwood.

Every instinct within me recoils, so far as I personally am concerned, from taking any note whatever of the fact, save to quicken and deepen within me a sense of responsibility. Visions of what might have been done far outnumber those of what has been, and lead more naturally to great searchings of heart, as one thinks how great a treasure is committed to his charge, in the beautiful words of the Ordinal, "to teach and to premonish, to feed and provide for the Lord's family, to seek for Christ's sheep that are dispersed abroad." But something is due to custom; it is a large section of the history of a Parish as of a human life, and many are worshipping and working with us today whose only knowledge of the Parish is as they see it now, and to whom a review of the past twenty-five years may not in the way of information and stimulus be without its interest.

Twenty-five years ago, Longwood, so called, only a section of the town of Brookline, numbered comparatively few houses. The community was like a little family by itself. Every one knew his neighbor. Beacon street was a country road less than fifty feet wide. Some of the larger trees now standing by the side of the electric-car tracks were inside the curbstone of the sidewalk. The communication with Boston was by railroad from Cottage Farm and Chapel Station, or else by coach, starting from Coolidge's Corner and depositing its passengers at the door of a small shanty in the then open country this side of West Chester park, now Massachusetts avenue, there to await the next Marlborough-street horse car. Chapel Station was a small wooden building, reached by steps downward from the foot of Carlton street, and was station and postoffice combined, where each family had to call for its letters. Across the track from it were three stores, a grocer's, a thread and needle and a plumber's, and farther along a number of cheap tenements. Muddy River was a dirty stream meandering through an unsightly marsh, a favorite breeding-place of the Longwood mosquito, in point of numbers and size almost a typical creature. So you would have seen Longwood then. You see it for yourselves as it is now. The expectation was that it would be quickly built up, but for about eight years not a house was erected. The first were the two on Carlton street, between Beacon and Ivy, and the third the Rectory, up to that time the Rector having rented the house No. 6 Monmouth place. The widening of Beacon street in 1891, and a little later the placing thereon a line of cars, gave the first impulse to development and growth, until now, though in some portions Longwoood is as rural as ever, along that thoroughfare it is scarcely to be distinguished from a section of the city.

An old photograph framed and hanging in the robing-room, for today in the Church porch, shows the Church as it then was, standing alone on this lot, the grounds rough, and in the rear grown with underbrush, a wooden stable hard by. For awhile, with the exception of a short period when we hired first the parlor of the house opposite, now the Longwood Club, and then the little cottage on Colchester street, it or some private house served the purpose of all meetings of whatever kind. To my suggestion that we needed to erect a Parish-room, it was at first replied, "We have the church, what need we more?" But the necessity for it became more and more urgent, and in 1880 the present room was built, and soon the wonder was how we had ever done without it. Hardly a day passed that it was not in use, a centre for the growing activities of the Parish.

The building of the Parish-room was part of a larger plan that we hoped one day to see realized, namely, the erection of a Rectory and the convenient connection of the same with the Parish-room and the Church by a covered cloister. We had not long to wait, for in 1885 God put it into the heart of one of our members, Mrs. Amos A. Lawrence, to build and give to the parish a beautiful and convenient house for the use for all time of the Rector. The gift acted as a stimulus to others, and found the Parish ready to respond to the call that they should build at the same time the cloister, connecting and unifying the whole group, which now for beauty of position and design and for convenience of arrangement is unique among the Churches of the diocese The year 1893 brought another enlargement and improvement. Upon the death of Mrs. Lawrence her children as a memorial erected yonder transept, fitted with its own altar and prayer desk, for week-day services, and the adjoining choir-room, robing-room and organ chamber, ready for the new organ, since placed therein.

A long list of other improvements and gifts during these years, many of them memorials, is found printed in the Year Book, with the names of the donors, some of the principal of which only, I will simply mention. Almost each year witnessed something. In 1879 the first choir stalls; in 1880 stained-glass windows in Parish-room, memorial; in 1881 chancel and Parish-room decoraten; in 1882 chancel floor tiled; in 1884 the Corona, memorial; the window, designed by Burne Jones, memorial; in 1885, Church re-decorated throughout, another memorial window; in 1886, memorial tablet, and house on Monmouth place given; in 1887, tiling cloister by the Guild; in 1888, bronze memorial tablet; in 1889, extending and tiling chancel floor and choir seats by the Guild; in 1893, $2000 for fund for repairs on organ; in 1895, Angel Lectern, memorial; in 1896, new chancel windows; in 1897, brass memorial tablet; in 1898, memorial window; in 1899, window, a thank offering, silver-mounted altar service book, memorial; in 1900, new $5000 organ, church recarpeted; in 1900, pews recushioned. Not a few of these as you see are linked with the names of those who, having worshipped and worked with us here, now rest from their labors, and whose memory to generations yet unborn, who never knew them, is thus perpetuated in this house of God dear to them and to us. They recall the names of Lawrence and Appleton, of Gregory and Bush, of Lincoln and Stebbins, of Amory and Cleveland, of Wentworth and Wales, and unite them forever with the Church in that most sacred and beautiful of all associations.

Upon the retable of our altar stand two brass vases, the gift of a member as a memorial to the first Rector of this Parish from 1868-1874, the Rev. Elliott D. Tomkins, who with singular devotion and humility, and with all the fervor and earnestness of his strong Evangelic faith, gave himself for six years to its interests.

To the memory of the second rector, from 1874-7, the Rev. Frank L. Norton, D. D., who brought to this, his first Parish, the enthusiasm of youth, brilliant gifts as a preacher and the affection of a genial nature, there is as yet no memorial; but the Bible from which the lessons are now read was his gift.

It was to his suggestion, I believe, that we owe our unusually heavy and beautiful silver Communion service, the history of which should not be allowed to be forgotten. Persons were asked to send in articles of silver with which they had some tender association, from their having belonged perhaps to some deceased child or friend. Many such were received, and melted were blended into one Communion service, bearing these memories before the Lord continually throughout the generations.

Oct. 1, 1881, with the favor of some and the reluctance of a few, but as a whole with cordial co-operation, the congregation met my advocacy that our Church be made free, and the doors were thrown open to all comers, with equal rights to any pew or sitting. No pews rented or taxed. Its merits are that it is right in principle, that merchandise is not made of the House of God, that no one of however limited means need absent himself from Church because unable to own or rent a pew, that it promotes a sense of brotherhood among men, that by means of the offertory as the method of support it promotes the making of offerings to God as an element of our worship. And its results have been favorable, both on attendance and on our finances, remarkably so, I think, when we consider that by the death within a period of a few years, of three of our members, we were deprived annually of $2500 income. Its principal drawback is that many are not yet educated up to its high ideals, and all are not using it as it should be used to their own good and progress in the duty of giving from highest motives and to the advantage of the Church. It needs but this to put our Parish on a financial basis of which we should all be proud.

Such are some of the changes of these twenty-five years in the place, in our Church edifice, its equipment and its use. But these are only means to an end. Every Church exists for the good in the fullest and most complete sense of the community in which it stands, and for the promotion of the Gospel of Jesus Christ and the upbuilding of His Kingdom in the world. If it does not this, it may have a name to live, but is dead. Indeed, it misses its purpose altogether. To this end I early sought to establish such organizations as without excessive and undue machinery should equip us for the work that belonged to us to do. The first formed was our Parish Aid Society, with its two departments on employment and on visiting. At the very outset, there being no resident poor in Longwood, and yet a dense population of them within twenty minutes walk in the Roxbury district, to which, so near to our own doors, I felt a community like this owed a responsibility, for our own good as well as for their betterment or relief, an arrangement was made with the rector of the adjoining Parish of St. Johns, by which the region lying west of Parker and Tremont streets was committed to our care. Here, at first independently, but later in connection with the Associated Charities, with which we are now in active union and supplying about half the visitors in that district, both departments have done most of their local charitable work. If you knew what this affiliation meant to them and to us, you would believe that it has been a blessing to both Parish and that neighborhood. At the same time, in its relation to the Woman's Auxiliary in its various departments, and to the City Mission, the Aid Society has taken rank with the largest city Parishes in the amount and excellence of its benefactions to the missionary work of the Church.

Shortly thereafter was organized the Young People's Aid Society, soon to pass into the Guild of the Church of Our Saviour. At first composed of the young women of a single class in the Sunday-school, it was later enlarged by the formation of two chapters, the men's and the women's, each having its own organization and methods of work, together forming one body. Its object at first being only to raise funds to be used for repairing and adding to the furniture and interior decorations of the Church and Parish-room, in 1883 its purposes were considerably enlarged and extended towards the advancement of the spiritual as well as the material interests of the Parish, by promoting zeal, order and decorum in all the Church services, etc. A part of what it has accomplished you have already been told. It is a most active and useful organization, and has raised some thousands of dollars. It witnesses to what, I think, is quite a marked characteristic of our Parish, a fine body of young men and women, with a strong sense of their responsibility to the Church and the Church's work and worship, many of whom I baptized as infants, and of some of them since in turn, their children.

The Longwood branch of the Church Temperance Society and St. Saviour's School, a private week-day school for boys and girls, both served their purpose for a time, the former being usurped by the men's chapter of the Guild, and the need for the latter passing away with the growth and patronage of the public primary school in the neighborhood.

In 1887, by a member who has taken a deep interest in the choir from the beginning, as, indeed, in all the interests of the Parish, the Choir Association was formed, having for its object the retention of the relation of those passing out of the choir to the Parish, and their association with the present members for mutual improvement. The Choir Club since formed, and meeting more frequently, comprises chiefly the present choir boys, and is for the promotion of friendship among them, and the assisting the choir master to improve the choir. Membership in these has meant to many a boy a lifelong interest in the Church, entrance upon and growth in the Christian life, and subsequent valuable service to the choir as men.

Were I to touch for a moment upon what I have sought to have characterize the worship and the preaching that has obtained in this House of God, I would say that as to the former it has been my aim to provide the people with a Service that should be reverent and worshipful, neither excessive in ritual on the one hand, nor bare and bald and shorn of all that is beautiful and helpful on the other, with a devotional, homelike Church to which men would like to come to find rest and peace. And in respect to the pulpit and its message, not to keep back God's loving mercy and truth from the great congregation, not to bring into it subjects of which all receive a plethora during the week in newspapers and periodicals and books, but to preach the Gospel, for which I believe men are hungry, to unfold the Scriptures, to seek to know what was the true teaching of the portion treated, in the light of its connection, and to see its bearing on the great life questions to which the longing heart of humanity looks to it to speak. Well do I know how far short of all this I have come, but this at least has been my aim.

During these twenty-five years your offerings for objects within the Parish have been in round numbers, $147,000; for objects without the Parish, missionary and charitable, $40,000; total $187,000. There have been 198 baptisms, 211 confirmations, 70 marriages, 101 burials. The number of communicants in 1887 was 109, the number now about 300.

But the work of a Christian Church, the chief work it exists to do, no figures can measure, no statistics represent. The quiet work that goes on in the soul of man under the blessing of God's Holy Spirit, upon the Word faithfully taught and preached, upon worship in His Holy Temple, upon the diligent use of all the means of grace, the vows and prayers of consecration, the uplifting of the heart, the penitence, the sense of forgiveness and the blessed peace of God found in communion with Him, as heart after heart has thankfully opened itself to His gracious influence, the blessed progress, the highest, the truest of all, for which all these agencies are only as the means to an end, this no eye can see, no tongue can tell in its fullness and completeness.

"How silently, how silently," writes one I need not name of the coming of Christ into the world,

"How silently, how silently
The wondrous gift is given.
So God imparts to human hearts
The blessings of his heaven."

I know that these blessings have come to many of you. Learn always in all your work, and in all the helps to it which you use, to keep them first; may my eye be single to them, and may God's shower of these upon us more and more as the years go by. Many who used to be here working with us, side by side, have moved to other Parishes, and have merely transferred their interest and usefulness there; many from other places have brought their help to us, and some are fallen asleep. We would remember them, every one, today, and ask that the living may catch the inspiration that ever comes from the good examples of those who, having finished their course in faith, do now rest from their labors.

For a happy relationship between Rector and people, our peace unbroken, peace! that prime condition of the usefulness and efficiency of any association; for a hearty co-operation and upholding of my hands in all that I have tried to do, with many helpers with whom it has been a privilege to work, and let me add with a faithful and self-forgetful helpmeet by my side who has given freely of her strength and of her means, I give thanks today, as I ask it for the future, as larger and larger opportunities open out before us and we seek to do our duty by them. For we must not be content with any achievement of the past. We must enlarge.

One cannot think of the greatness of the trust thus committed to him, measure attainment by its possibilities, and not be profoundly humbled. I can only say that for twenty-five of the best years of my life I have lived in and for this Parish, carrying its interests as I have seen them, at all times within my heart and to the Throne of grace, and that there is no life, in all highest respects, so superbly satisfying as the ministry. To have been in any measure of some service to some in this high relation, what is there like that? Would that it had been more! "Ourselves your servants for Jesus' sake," that was St. Paul's conception of it. And with that as our call and prayer for the future I have put these words of the old prophet, spoken so long ago, but appropriate and prevailing still, "O Lord, revive thy work in the midst of the years, in the midst of the years make known." I would see in them myself, I would have you see the summons to us as a Parish to rise to what it ought now to become, taking its place as, practically, a great city Parish, doing all that belongs to it to do on a larger scale, in a word awaking into its new life, knowing as we pray this prayer, now, in the midst of these years, that it is He that worketh in us both to will and to do of His good pleasure, and asking that He make Himself known ever more and more to both minister and people.

A problem that has vexed many stock breeders this season is how to prevent and cure calf scours. The well-known pharmacists, C. I. Hood Company, Lowell, Mass., seem to have solved this problem with Hood Farm Calf Scour Cure and Digestive Powder. C. P. & E. C. Yarnall of Kelton, Pa., write that they have saved every case with these remedies. One calf that appeared to present a hopeless case was cured and is now a fine calf. At Hood Farm, Lowell, Mass., in one year there were only three deaths out of eighty-seven cases of scours. Write to C. I. Hood Company about these remedies.

—An important announcement was lately made by L. O. Howard, the United States entomologist, of the discovery of the long-sought original habitat of the San Jose scale insect. This was found to be in China, in the region to the south of the Great Wall. The scale insect was preyed upon by a species of ladybird beetle, living examples of which have been imported, to be propagated and distributed.

—A novel plan is designed to do away with the lighthouses for night navigation between Montreal and Quebec, and to substitute an electric system. The idea is to sink a cable in the centre of the navigable channel of the river for power transmitted from a power-house at Montreal. Lines of colored lights, supported by cork buoys, will be placed at the water level on each side of the channel, the lights on one side being of a different color from those on the other side.

Poultry.

Poultry Experiments in Maine.

We promised a continuation of Professor Gowell's report of his poultry experiments. Nov. 9, 1900, 180 pullets of Barred Plymouth Rock, White Wyandotte and Light Brahmas were put in winter quarters. Twenty pullets and two cockerels were put in pens ten by sixteen feet in the clear space, and each house has four of the station trap nests. Each pen of twenty-two had one pint of wheat in the deep litter in the morning. At 9.30 they had a half-pint of oats in the same way, and at 1 P. M. a half pint of cracked corn also scattered. At three in winter and four in summer they had as much mash as they would eat clean in a half-hour.

The mash was made of 200 pounds of wheat bran, 100 pounds each of cornmeal, wheat middlings, linseed meal and meat meal or fine meat scraps. Part of the year the linseed meal was omitted, and the amount of meat meal doubled. One-fourth of the bulk of the mash was clover heads and leaves, secured from the feeding floor in the barn, which was well soaked with hot water. The mash was made quite dry. Cracked bone, oyster shells, clean grit and water were before them all of the time, and two large mangels were given each pen daily in the winter, and plenty of green food in summer. Very few soft-shelled eggs were produced, and none eaten by the hens. Fifteen hens died and nine were stolen during the year. A few eggs were laid in the litter on the floor, and they were not credited to any hen.

The 80 Plymouth Rocks gave 10,611 eggs in the year, though many of the later hatched did not begin to lay until January. The pullets were hatched from April 1 to May 16. Ten died or were stolen, 2 in April, 2 in May, one in June, 2 in July, 2 in August and 1 in December, but the average was 132 eggs per hen. But the record of individual hens is most interesting. No. 303 laid 208 that year and 127 the following year. No. 326 laid 211 that year and 145 the second year. No. 327 laid 237 good brown eggs that year and 102 the second year. After she had laid 200 eggs the next dozen were saved as produced, and they weighed 1 pound 11¼ ounces. In the same pen and with the same treatment were Nos. 347, 361 and 375, that gave 32, 42 and 36 eggs respectively during the year. There were 6 hens that gave from 180 to 198 eggs, and 14 gave from 160 to 179 each, and 21 others exceeded the average of 132 each. Thus 44 exceed the average, and 36, including the ten that died or were stolen, fell below it.

The eighty white Wyandottes laid in the year 9844 eggs, an average of 123 each, though ten of their number died or were stolen in the year, two in November before they laid at all, four stolen in May, one died in June and two in July and one in September. No. 403 laid 209 eggs in the year and 219 in a year from the time she began laying. The second year she laid 162 eggs. No. 428 laid 217 eggs in the year to Oct. 31 and 219 in a year from the time she began to lay. The next year she laid 138. No. 445 laid 208 up to Oct. 31, and 219 in a year from the time she began. The next year she gave 139 eggs. No. 480 laid 214 to Oct. 31, and 218 to close of full year. The next year she gave 172 eggs. In the same pens were Nos. 411, 462, 474, 475 and 478, that gave respectively 62, 22, 41, 10 and 66 to Oct. 31. Though they looked well as pullets, and most of them began to lay before January, they showed signs of low vitality later on. Beside the four that exceeded 200, there were four that laid from 180 to 196, twelve between 160 and 180 each, thirteen others exceeded 140 eggs each, and ten others exceeded 123, leaving 37 that fell below the average, including the ten that died or were stolen.

Of 20 light Brahmas none exceeded the 200 egg limit, but they laid 2018 eggs in the year, an average of nearly 101 eggs each. Four died or were stolen in the eighth and ninth month of the test. The largest number of eggs from one hen in the year was 164. Two others between 140 and 150 eggs each, three between 120 and 140, three between 100 and 120, and seven completed their full year with less than 100 eggs each. No. 485 only laid two eggs in the year, one in January and one in April. There was nothing in her looks to indicate that she was not a producer, although toward the last of the season she became fleshy.

Nov. 1, 1900, they put 100 Barred Plymouth Rocks and 90 White Wyandottes in the same pens, and treated them in the same manner as those of the previous year; 14 of the Rocks and 17 of the Wyandottes died during the year, though no disease was evident in the flock. They laid 13,200 eggs up to Oct. 31, an average of 132 eggs each, 6 of them giving from 250 to 234 eggs each during the year to Oct. 31. In the same pens were 6 others that laid only between 23 and 70 each. There were six others that gave 200 eggs before the first year of their laying was over, making 12 hens out of the 100 that laid over 200 eggs in the first year of their laying. The best work they have had by any hens since they began selecting their breeding stock by the present was by No. 617, that laid her first egg Nov. 26, and up to Nov. 28, 1901, she had laid 251 eggs, 16 of them laid from 180 to 190 eggs each, 15 from 160 to 180 each, 12 from 140 to 160 each, 13 between 120 and 140 each, and 35 less than 120, which includes the 6 named above and the 14 that died before the year ended. They were all April and May hatched chickens.

The 90 Wyandottes were of the same ages and they produce 11,184 eggs in the year, an average of 124 to each hen. There were six birds that yielded from 203 to 233 eggs each, while the six poorest gave from 36 to 65 eggs each. Five laid between 180 and 190 each, 12 between 160 and 180 each, 14 between 140 and 160 each, 10 between 120 and 140 and [illegible] others exceeded 100, leaving 45, including the six poor ones named above, and the 17 that died before the year was up, to have records of less than 100 eggs.

The largest egg record that we see for any month is by one Plymouth Rock that laid 30 in May. Unfortunately she did not live to complete her record, but she gave 180 eggs in ten months. Several of them reach 27 and 28 eggs in a month, though only one of the 12 fowl that equalled or exceeded 200 eggs reached that number in a month. They distinguished themselves by the regularity with which they yielded from 20 to 24 each nearly every month.

During the three years they have been testing them they have had 30 hens that laid from 200 to 251 eggs a year; 26 of these are now in the breeding pens, and the other [illegible] to be used for breeding are hens that have laid over 180 eggs a year, pullets whose mothers and whose father's mothers laid over 200 eggs in a year, and pullets sired by cockerels whose mothers and grandmothers laid over 200 eggs a year. The large number of the foundation stock, and the fact that the pedigree of each bird, or the younger ones at least, is known for three generations, helps to prevent inbreeding.

It is interesting to look back at the test from Nov. 1, 1899, to Oct. 31, 1900, and notice the falling off of the 200-egg hens in their second year. This was noticeable in most cases with the hens that were tested for two years, which we mentioned in our previous article. Of 28 Plymouth Rocks we find but 4 that laid more in the second year of the test than in the first, and they began late the first year, and were laying well at the beginning of the second. The same may be said of the 1 Brahma among 16, and the 4 Wyandottes among 23 that were tested two years. The hens that laid 200 or more eggs the first year did not reach near that figure the second, and fell much below when kept another year.

THE NEW TOMATO, SPARKS' EARLIANA.
By permission of Johnson & Stokes, Philadelphia.

How Many Hens to Keep.

If there was ever need of the old slang phrase of caution, not to bite off more than you can chew, it is in the poultry business, where so many stumble on the rock of attempting too much. They overstock their place with poultry, and find to their consternation that they cannot accommodate them all, and their losses through sickness and crowding become so formidable that they lose heart. There can be no better advice than to make the first purpose in the business to raise a flock of fifty fowls of one variety, all of which are of good quality and condition. On every farm this number should at least be kept. Why limit it to twenty or thirty. Bring the number up to fifty at once, and make this the unit of the business. Thereafter let each increase be on the score of fifty. When you can handle one flock of fifty satisfactorily start in with the second unit, forming the new flock from the best blood of the old or new stock, and increase it gradually until it is recruited up to the limit. Draw the line strictly at fifty, and either do not go beyond that number or be in a new flock.

The person who can handle a flock of fifty satisfactorily, with few or any losses, is competent to begin the formation of another colony. Let the progress, however, be slow and sure. The old flocks cannot be sacrificed to the new. If we cannot obtain fresh outside blood to keep up the standard it is better to keep down the numbers. This must be considered as an essential part of the annual cost of the business. The person who fails to add outside blood every year will surely find his flocks degenerating in spite of all care. Consequently an annual appropriation from the profits should be made every year for the purchase of new birds that will bring sterling qualities into the colonies. Whether one is in the business strictly for the eggs or for broilers this policy is essential to success. There are some few people who become so proud of the fine birds they have purchased or raised that they do not want to mix any other blood with them, and so through a system of isolation and inbreeding they lay the foundation stones of degeneracy. Within few years the standard of the flock is brought so low that few would care to purchase any of the birds. Many a good flock has thus been ruined.

ANNIE C. WEBSTER.
Pennsylvania.

Poultry and Game.

The receipts of poultry have been light the past week, and they have been well cleaned up. Fresh-killed Northern and Eastern stock is scarce, and 16 to 20 cents is readily paid for choice roast or broiler chickens, common to good 10 to 14 cents. Choice fowl are 12 to 14 cents and good at 11 cents. Ducks bring 12 to 15 cents and geese 9 to 13 cents, good to choice. Choice pigeons are $1.15 to $1.25, fair to good 50 cents to $1 a dozen, with choice large squab $2.50 to $3 and ordinary $1.75 to $2. Western dry-packed stock is higher, and in boxes choice chickens are 14 to 15 cents, with fair to good 10 to 12 cents. Fowl 13 cents for choice, 11 to 12 cents for most of receipts. Choice large capons still scarce at 16 to 18 cents and small or medium selling fairly well at 13 to 15 cents. Ducks 12 to 15 cents and geese 9 to 12 cents. Turkeys in fair demand and small supply. Choice hens, headed and drawn, sell well at 15 to 18 cents, heads on 14 to 16 cents, choice toms 15 to 17 cents, old toms 12 cents and mixed lots 14 to 15 cents, No. 2 10 to 11 cents. In barrels they are a little lower, choice turkeys 14 cents and common to good 12 to 13 cents. Chickens 11 to 13 cents, fowl 11 to 11½ cents and old roosters 7½ to 8 cents. Live poultry steady, with a fair demand. Fowl at 10 to 11 cents, chickens 9 to 10 cents and old roosters 5 to 6 cents.

Game in limited supply and mostly in cold storage. Grouse are dull at $1.50 to $2 a pair, and quail scarce at $2 to $3 a dozen. Canvasback duck choice $2 to $2.50 a pair, with poor to good 50 cents to $1.50, red heads seldom over $1 and some at 50 cents, black ducks 60 to 80 cents, mallards 75 cents and small shore ducks 20 to 50 cents. Brant $1 a pair. Some wild geese in storage at 75 cents to $1.25 each. Venison, bear and moose in storage, and best cuts costing 25 to 40 cents a pound. Rabbits scarce at 15 to 25 cents a pair and jack rabbits nominally 75 cents to $1 a pair, but doubtful if any are in market now.

Horticultural.

Transplanting Nursery Stock.

Losses are apt to be met with in transplanting fruit trees from the nursery to the orchard. We often notice that the trees have received some sharp set back the following season. I well remember the time when it was generally expected that, out of every lot thus transplanted, a fair percentage of them would die and another percentage would drag along in an uncertain existence for several years, then perhaps to die, or prove worthless, with a necessity for replanting.

However, as the requirements of nursery trees and the art of transplanting them has become better understood, the percentage of loss has been materially decreased. It is now the prevailing opinion that there need be but little loss, in the near future, by proper management. Of course this means greater skill in transplanting and greater care on the part of the shipper, as well as of the receiver.

Many of these young nursery trees arrive at their destination in poor condition for planting. Many times this is due to the fault of the shippers. However, until both the nurserymen and the transportation companies can be made to do better, the purchaser must try to make up for their ignorance or carelessness by careful transplanting and after treatment.

In purchasing nursery stock it would be well to patronize only the most reliable companies, or some firm that is well known and which is ready to make good the losses, after one year's setting, by sending enough of the same varieties to fill the places of the dead trees. In making purchases be sure to make this demand or withhold the orders. Let us make this demand in all cases, and nurserymen will soon learn our terms and conditions and will be ready to comply with the purchaser's conditions.

Better order from nearby firms, or large firms with good transportation facilities as those coming but short distances will reach us in better condition, provided they are first-class stock when leaving the nursery. Demand early shipment and prompt delivery, as many trees get badly dried up before delivery, through carelessness of those sent out to make the delivery.

Sidney, Me. A. E. FAUGHT.

Vegetables in Boston Market.

High prices for vegetables continue, as the receipts of Southern and hothouse products are light, and winter vegetables are not very abundant. This makes a rather dull trade. Beets are selling at 75 to 90 cents a box, carrots at 40 to 50 cents and parsnips 65 to 90 cents, flat turnips 30 to 50 cents a box, yellow 90 cents to $1 a barrel and white French $1 to $1.25. Onions are firm. Native $1.30 to $1.50 a box, western Massachusetts prime $3.75 to $4. Havana small crates $2.40 and Spanish $3.50 a case. Leek 50 cents a dozen and shallots 15 cents a quart. Radishes 30 to 35 cents a dozen and celery $4 to $5 a box. Salsify 75 cents to $1 a dozen. Artichokes $1.25 to $1.50 a bushel and French artichokes $3.50 a dozen. Hothouse cucumbers scarce; No. 1 $15 to $20 a hundred and No. 2 about half price. Peppers $6 to $6.50 for six-basket cases. Egg plant from Florida scarce at $5 to $8 a case. Hothouse tomatoes 30 to 35 cents a pound and Florida $2.50 to $3.50 a carrier. Squash have gone up to $85 to $100 a ton for Western Hubbard and $65 to $70 for Marrow. Florida summer squash $3 a crate. Hothouse asparagus $6 a dozen bunches and rhubarb 9 to 10 cents a pound. Mushrooms 60 cents to $1.

Cabbages are firmer at $1 to $1.15 a barrel and red cabbages 75 cents to $1 a box. California cauliflower $2.75 to $3 a case. Sprouts 12½ to 15 cents a quart. Norfolk kale 75 to 85 cents a barrel. Lettuce from 50 to 75 cents a dozen. Spinach 80 to 85 cents a box $2.25 to $2.75 a barrel. Beet greens $1 a box and dandelions $1.75. Parsley $2.50 to $2.75 a box. Endive and escarol $1.25 a dozen and romaine $1.50. Watercress $1 and mint $1 to $1.25 a dozen. California peas not plenty or really prime, at $2 to $2.50 a crate. Florida string beans coming more freely at $3.50 to $4.50 a crate.

Potatoes in good supply but firm. Aroostook Green Mountain 83 cents for extra, 80 cents for good. Hebron extra 80 cents and good 78 cents. Rose 75 cents and Dakota Red 70 to 73 cents. York State Green Mountain 75 to 78 cents. Prince Edward Island Chenangoes 67 to 68 cents. Dakota Red 75 to 78 cents. Scotch $2 and Belgium $1.75 to $1.90 per 168-pound sack. Sweet, dull. Vineland $4 to $4.25 a barrel and Jersey double heads $3.25 to $3.75.

Domestic and Foreign Fruit.

Apples are in good supply, owing to a weak demand for export; 4767 barrels received last week and only 574 exported. Prices nominally unchanged, but market not as firm. King $4.50 to $5, Spy and No. 1 Baldwin $4 to $5, No. 1 Greening $3.75 to $4.25, Baldwin and Greening common $3.25 to $3.75, Western Gano $4.25 and Ben Davis $3.50 to $4, Talman Sweet $2.50 to $3.50, mixed varieties the same and No. 2 $2.50 to $3.25. Cranberries in light supply and demand. Fancy late $6.50 to $7 a barrel, choice sound $5 to $6, common to good $3.50 to $4.50, crates $1.50 to $2. Florida strawberries plenty at 30 to 40 cents a quart.

Florida oranges in fair supply yet. Some fancy bright $3.50 to $3.75, good to choice $3 to $3.50, and russet $2.75 to $3.25. Some 96 counts at $2.25 to $2.50. Indian River bright $3.25 to $4.50 for good to fancy. Tangerines $5.50 to $6.50 and mandarins $2.75 to $3.25. Grape fruit, good to choice, $5.50 to $7. Jamaica oranges $5.50 a barrel, $2.50 to $2.75 a box. California Navels, 126 and 150 counts, $3 to $3.50, 176 and 200 counts $3.50 to $3.75. Seedlings scarce at $2.25 to $2.50. Valencia cases, 420 counts, $3.50 to $3.75, grape fruit, good to choice, $2.75 to $3.50. Jamaica grape fruit $5.50 to $6. Some California fruit frozen in transportation goes to the hucksters at almost any price. California lemons, good to choice, $2.75 to $3. Messina and Palermo lemons, 300 counts, good $2.50 to $2.75, choice $3 and fancy $3.50, 360 counts 25 cents less for same grades. Florida pineapples, smooth Cayenne, $2.50 a box and Abbaka $2 at boat, jobbing 50 cents higher. Turkish figs 12 to 15 cents, dates 4 to 4½ cents a pound. Malaga grapes quiet at $4 to $6 a cask. Bananas $1.50 to $2.50 a stem, as to number and condition, but very dull.

The Hay Trade.

The oversupply of hay continues, and with dealers trying to close out what they have on track, to save storage and fines for holding cars, they say they are in a snug place. While the best is not in large supply, it may be called a fair supply, and prices easier, and lower grades are decidedly weak. If shippers would hold back a part of their stock until some of the accumulations have been reduced, they might realize better rates later in the season, for while the supply is large, many are using more hay and less grain for their stock, and some who are not willing to buy now may be anxious to obtain a supply later in the season.

Boston received 679 cars of hay, of which 269 were billed for export, and 18 cars of straw. This was too much for a market already overstocked. Corresponding week last year, 375 cars of hay, of which 100 were billed for export, and 14 cars of straw. Choice timothy was quoted at $17 to $17.50 in large bales, $16 to $17 in small bales, No. 1 at $16 to $16.50, No. 2 $14 to $15, No. 3 and clover mixed $12 to $13, clover $12 to $12.50. Straw is quiet at $15 to $16 for long rye, $11 to $12 for tangled and $9.50 to $10.50 for oat. Providence has at last succeeded in getting cars to bring a good supply, and there is enough of best grades and an overstock of low grades. Choice timothy is $17.50 in either size, No. 1 large $17 and small $16.50, No. 2 large $15 and small $14, No. 3 $12 to $13, clover mixed $12 to $13 and rye straw No. 1 $16.

In New York city choice and No. 1 may be said to be in fair supply, though not much in excess of the light demand. Lower grades in over supply, and weak at quotations, though there is fair export demand. Receipts were 8588 tons, last week 12,740 tons, and corresponding week a year ago, 5670 tons. Exports were 81,199 bales, against 21,483 previous week. Prime sold at $17.50, No. 1, $16 to $17, No. 2, $15 to $16, No. 3, $12 to $13.50, shipping, $12 to $13, clover mixed, $12 to $15, clover, $11 to $13, straw, long rye, No. 1, $15.50 to $16, No. 2, $14, oat, $9 to $10, wheat, $8 to $13. Trade is dull in Jersey City, with much being held on cars for lack of storage room in sheds. Best grades at New York prices, and grades below No. 1 lower than in New York. Straw dull, with light demand. Brooklyn is overstocked with all but prime and No. 1, which are firm, other grades below New York rates, and straw in fair supply, with light demand.

The Hay Trade Journal gives highest rates, $18 at Brooklyn, $17.50 at Boston, Providence, New York and Jersey City, $17 at Nashville, $16 at Philadelphia, $15.50 at Baltimore, Norfolk, Richmond and Memphis, $14.50 at St. Louis and Pittsburg, $14 at Buffalo, $13 at Cincinnati, Kansas City, Chicago, and Cleveland, Minneapolis and St. Paul $12, Duluth and Detroit $17.50.

The Montreal Trade Bulletin says there has been an active trade of 800 to 1000 tons the past week at $10 to $10.50 for No. 1, $9 to $9.50 for No. 2, $8 to $8.25 for clover mixed. Besides this, 15 to 20 cars of No. 2 have changed hands at $9.20 on track, and other lots at $8.50 to $8.75. Some has reached Montreal badly damaged, with chunks of ice or snow in the cars, and a part of it was unmerchantable.

The farmers of Genesee County, N. Y. are reported as having more hay to sell this winter than for several years past. Most of it is pressed and shipped in bales. A shipment of six thousand tons of hay was made from Brooklyn, N. Y., to the British troops in South Africa last week, and two thousand tons are contracted in Portland, Ore., to be sent to the troops in the Philippine isles.

—The exports of dairy products from the port of New York last week included 2781 packages of butter to Liverpool, 1056 to Southampton and 50 to Glasgow, also 425 boxes of cheese to Liverpool, 1056 to Southampton and 1132 to Bristol, a total of 4787 packages of butter and 2613 boxes of cheese.

—The total shipments of boots and shoes from Boston this week have been 90,552 cases, against 91,298 cases last week, corresponding period last year 82,255. The total shipments thus far in 1902 have been 555,358 cases, against 505,806 cases in 1901.

—Paris has a municipal department that not only moves large trees from place to place, but takes such as are sickly to a tree hospital, where they are restored to vigor and then set out anew.

—John Hays, the first white man to discover the immense copper deposits of Michigan, still lives in Cleveland, O., and is ninety-seven years old. The peninsula of the Great Lakes is the richest mineral-bearing territory in the world.

—Three government agricultural stations have been established in Alaska, and from all come more favorable repotts than were looked for. Though the temperature last winter reached 70° below zero, rye planted in the fall was protected by several feet of snow, and matured perfectly.

—Trafton makes the exports from Atlantic and Gulf ports last week to include 264,440 barrels of flour, 1,242,000 bushels of wheat, 222,000 bushels of corn, 3140 barrels of pork, 9,204,000 pounds of lard, 20,670 boxes of meats.

—Some of the Maine papers are advising farmers not to market their hay yet, as the cold weather and lack of snow has caused grass to be winter killed on many meadows. But Maine is not the only State that grows hay to sell, and in other sections that we hear from but little grass was winter killed.

—The exports from Boston for the week ending Feb. 7 were valued at $1,359,128, and the imports at $1,461,991. Excess of imports, $102,863. Corresponding week last year exports were $3,402,287, and imports were $1,146,732. Excess of exports, $2,255,555. Since Jan. 1 exports have been $10,708,179, and imports $7,805,263. Excess of exports, $2,902,916. Same period last year exports were $17,277,809, and imports were $6,122,206. Excess of exports, $11,155,603.

—Shipments of live stock and dressed beef last week included 2448 cattle, 2760 sheep, 723 quarters of beef from Boston, 1401 cattle, 2450 sheep, 14,785 quarters of beef from New York, 224 cattte from Baltimore, 352 cattle, 1350 quarters of beef from Philadelphia, 151 cattle, 1980 quarters of beef from Portland, 647 cattle from Newport News, a total of 5223, 5979 sheep and 25,345 quarters of beef from all ports. Of this 3308 cattle, 4004 sheep, 22,740 quarters of beef went to Liverpool; 1723 cattle, 1125 sheep, 1230 quarters of beef to London; 152 cattle, 760 sheep to Bristol; 1250 quarters of beef to Southampton; 41 cattle, 90 sheep, 125 quarters of beef to Bermuda and West Indies.

—Beef sold well for a Tuesday, and light and cow beef is firmer: Very choice sides 9¾ to 10 cents, extra sides 9¼ to 9½ cents, heavy 8¾ to 9¼ cents, good 8 to 8½ cents, light grass and cows 7 to 8 cents, extra hinds 11½ to 12½ cents, good 9½ to 11 cents, light 8½ to 9 cents, extra fores 6½ to 7½ cents, heavy 6 to 6½ cents, good 5½ to 6 cents, light 4½ to 5½ cents, backs 6 to 8¾ cents, rattles 4¾ to 5¾ cents, chucks 6½ to 7½ cents, short ribs 8 to 13 cents, rounds 6 to 9 cents, rumps 9 to 13 cents, rumps and loins 10 to 16 cents, loins 13 to 20 cents.

—The visible supply of grain in the United States and Canada on Feb. 8, included 56,566,000 bushels of wheat, 11,580,000 bushels of corn, 4,416,000 bushels of oats, 2,855,000 bushels of rye and 1,895,000 bushels of barley. Compared with previous week, this shows a decrease of 1,363,000 bushels of wheat, 52,000 bushels of corn, 115,000 bushels of oats, 48,000 bushels of rye and 225,000 bushels of barley. One year ago the supply was 58,494,000 bushels of wheat, 16,051,000 bushels of corn, 10,290,000 bushels of oats, 1,205,000 bushels of rye and 1,779,000 bushels of barley.

—The exports from the port of Boston for the week ending Feb. 8, 1902, included 7906 pounds butter, 445,003 pounds cheese and 64,000 pounds oleo. For the same week last year the exports included 195,600 pounds butter, 565,470 pounds cheese and 139,500 pounds oleo.

—Lambs are firm; muttons steady, veals short and very firm. Lambs 9 to 11½ cents, short and fancy Brightons 10 to 12 cents, yearlings 6 to 8 cents, muttons 6 to 7½ cents, fancy 6 to 8 cents, veals 9 to 11 cents, fancy and Brightons 10½ to 12 cents.

—Pork products are unchanged. Heavy backs $21, medium $20.25, long cut $21.25, lean ends $22, bean pork $17.25 to $18, fresh ribs 12 cents, smoked shoulders 10 cents, lard 10⅝ cents, in pails 11⅜ to 11⅝ cents, hams 12 to 12½ cents, skinned hams 13 cents, sausage 10 cents, Frankfurt sausages 9½ cents, boiled hams 17 to 17½ cents bacon 12½ to 13½ cents, bolognas 9 cents, pressed hams 12 cents, raw-leaf lard 11½ cents, rendered-leaf lard 11¼ cents, in pails 12 to 12½ cents, pork tongues $22.50, loose salt pork 10½ cents, briskets 1 cents, sausage meat 9½ cents, Quaker scrapple, 10 cents, country-dressed hogs 7½ cents.

—The Census Bureau reports $155,761,000 of capital engaged in cotton manufacturing in Massachusetts, and the annual product is valued at $110,478,000. The total capital engaged in cotton manufacturing in the United States amounts to $460,800,000. There are 969 establishments, and these concerns consume 3,660,000 bales of cotton per annum, and turn out a product of $332,824,455.

—According to the Census Bureau the increase in population in places of less than four thousand inhabitants in the States east of the Mississippi was 18.7 per cent. between 1880 and 1890, 19.2 per cent. between 1890 and 1900. In the same area the increase in urban population, all places of more than four thousand inhabitants, was 53.1 per cent. between 1880 and 1890 and only 37.2 per cent. between 1890 and 1900.

—The world's exports of grain last week included 7,912,457 bushels of wheat from six countries and 2,263,145 bushels of corn from four countries. Of this the United States furnished 4,800,457 bushels of wheat and 169,145 bushels of corn.

—Eggs keep well sold up, and as storage stock has disappeared or gone into the hands of retailers, the market is depending on receipts. Nearby and Cape fancy go quickly at 30 to 32 cents, and 30 cents is the prevailing rate for fresh Western and Eastern, if not frozen. Some are asking 31 cents. Fair to good lots 25 to 28 cents. If cold weather holds on, we may see a scarcity.

—During 1901 the imports of the four leading nations of the world were as follows: Great Britian $2,610,000,000, Germany $1,490,000,000, France $940,000,000, United States $880,000,000. The exports were: United States $1,465,000,000, Great Britain $1,400,000,000, Germany, $1,185,000,000, France $830,000,000.

—An English paper says that there is plenty of work for farm laborers in that country at $3.50 a week, if they board themselves. We republish the statement, but hope it will not cause a large emigration to England from the United States.

MASSACHUSETTS PLOUGHMAN
NEW ENGLAND JOURNAL OF AGRICULTURE

Are you going to the Mediterranean?

Was there ever an alliance that was not nominally for peace?

Johns Hopkins has 176 acres of additional land to stand upon.

The "White Ghost" is more fatal than less tangible spectres.

The country is as pleased as its President over the favorable condition of Teddy, Jr.

The United States gains a worthy citizen in Commander Booth-Tucker of the Salvation Army.

Perhaps the psychologist can explain the subtle movement in the blood that has now led the first boy of the season to hunt up his bag of marbles.

We regret to hear that John L. Sullivan is to abandon the stage without having played Hamlet. The action is contrary to all modern tradition.

The Japanese soldier looks fierce enough in his picture to back up any sort of a coalition. Experience has shown that he is also pretty fierce in actual battle.

Hockey has come up again with all the inherent charm of earlier years, and with a certain number of frills in the way of costume that are essentially modern.

Discussion is in order on the question of wearing or not wearing the juvenile hat. Parents, however, will probably continue to settle the matter in the old dogmatic fashion.

It would seem as if the thief who succeeded in biting through the gold fastening of a diamond stud might make an honest living as the "iron-jawed gent" in a dime museum.

Mr. Marconi's life is reported to be insured for $750,000. Considering all that the inventor bids fair to accomplish, the sum would far from cover the loss of his services.

There is seldom a more personal application of the golden rule than that of the New York pastor, who requests a reduction of his salary on the grounds that his present income is more than his parishioners ought to pay him.

Mr. Frank James objects to seeing his past visualized in melodrama. Cleopatra had something the same objection, and took poison to avoid the inevitable. Mr. James' efforts to obtain an injunction show the lapse of the centuries.

We wonder if the thoughts of a majority of the female population have been vitally concerned with the international convention of woman suffragists? Unless they have been, the movement is still for a long time to be described as "pioneer."

Waltham has a young woman—or rather did have—who has eloped with a dancing master, a romantic performance that had apparently fallen into complete disuse. The fascinations of the dancing master, however, have evidently not wholly yielded to the cooler environment of a commercial period.

If we get as many statues as seem to threaten us, the future essayist will have a splendid opportunity to typify the unpictu resqueness of the present period. Frock coats do not lend themselves to the uses of statuary, but the mistakes of art have an uneconomical way of preceding a realiza tion of them.

The Congregationalist wishes to know: "Is man immortal or only capable of immortality?" Without meaning to join the symposium, it may be pointed out that the majority of men seem instinctively to believe that they are. The idea unfortunately does not always help to fit them for immortality—if that condition should eventually turn out to depend upon how they have used their time during the present known period of existence.

The whole people will rejoice if the news of the improved condition of the son of President and Mrs. Roosevelt shall result in his recovery. He may not be more dear to them than is the son of the poorest people in the land to his parents, but the family of the President seem to belong to the whole Nation, even though there may be a minority who did not help to elect him.

The theory that a low temperature makes for increased activity of the brain may or may not be proved by the case of the New York jurymen who reported "no agreement," and added a complaint that they had been locked up all night without heat. Perhaps the temperature induced such mental activity that the jury evolved more side lights on the case than could possibly be harmonized.

Probably it is on the bills that eventually the women will vote. We doubt, however, that the effort to attain that end will become successful until a larger number of the gentler sex are personally interested. The right to vote is not so very much more widely desired than it was in the sixteenth century, and at that period there was a considerable leaven of emancipation among the wives and sisters.

Professor Hueppe says that the idea that a vegetarian diet leads to a mild and gentle disposition is a mistake, and he reminds his readers that the wild buffalo, the rhinoceros and the rice-eating Chinese pirate are alike remarkable for ferocity and cunning. We have seen horses that lived on a vegetable diet that seemed to have an idea that "all flesh is grass." We never hear this argument in favor of vegetarianism without thinking of a man we once knew, who said that "a man that would kill an animal to eat its flesh ought to be killed and eaten himself, and he would like to be the one to help do it." Yet he was not as savage as his remark sounded, for while living among neighbors who were flesh eaters we never knew of his killing any of them.

An English writer suggests that a sheaf of wheat should be hung up over the entrance of both Houses of Parliament, to remind the members that there is an agriculturel interest in the country to be looked after and provided for. This may be an excellent idea, but we have not much faith in its proving likely to increase the interest of the members in the welfare of the farmers.

The codfish has hung in the Hall of Representatives in the capital of Massachusetts for many years, to remind those sent there of the one-time importance of our fishery industry, but it does not seem to be very effectual. As long as people get their codfish balls or boiled salt mackerel for their breakfast, they care but little for the poor fisherman who endangers his life to catch the fish.

The centennial of the use of coal as fuel was held at Wilkesbarre, or was announced to be held on the second day of this month. In the winter of 1802 a man who lived in Mauch Chunk told parties in Wilkesbarre that the black stones would burn if put on a hot fire. One man by the name of Jesse Fell decided to try it, and he built an immense fire of wood, and put a basketful of the stones on it. The fire was so hot it nearly drove him out of the house, and on Feb. 2, 1802, he invited his neighbors in to witness another test. The fire, being started in a more careful manner, drove them all out of doors when well under way, and they had no doubt but that coal would burn. It required time to discover how to use it and control the heat, and before the end of the war in 1865 its use was not common in country towns. Now farmers with wood lots prefer to buy coal instead of cutting their wood, and if too old, too feeble or too lazy to cut wood they say they can buy coal cheaper than they can hire men to cut the wood and fit it for the stove. This is a part of the progress of one century, and what may we expect our children will see a hundred years hence?

An Incident of the Days of Slavery.

The Amherst (Mass.) Record, in commenting upon the recent death of Henry Jackson, aged eighty-three, a much respected colored citizen of that town, recalls a bit of ancient history which may be interesting to some of our younger readers. In 1840 a woman in Belchertown had planned to make a visit to the South, and to take with her an active colored girl, one Angeline Palmer, about ten or twelve years old. This came to be known to Jackson and some of his friends, one of whom was her half-brother, and they feared, we know not with how good reason, that when she reached there she might be sold into slavery. She made a farewell visit to an aunt in Amherst and was then sent in charge of the sheriff to Belchertown. Jackson and her brother, with another young colored man, followed them, and arriving at the house, the brother went in to see her. Soon there was a commotion, and the two others going in found the girl and her brother surrounded by women, who were determined to prevent her being taken away, but they forced the door open, took her out and in their wagon to Amherst, and later to Colraine, where she was secreted until the danger of the Southern trip was over for her.

After evading arrest for some time, all were arrested, or surrendered themselves, charged with abduction, and sentenced to three months in jail, which the jailer and their friends made light for them, and at its expiration they were met by the citizens with congratulations on their successful rescue and concealment of the girl. Instances of the taking of colored children, born free, into the Southern States, were said to have been frequent in some of the border States, and not unknown even in Pennsylvania, but they seldom occurred or were attempted in New England, and it is not now positively known whether it was intended to be done in this case. With the death of Henry Jackson, the last actor in this drama has passed away. He was for many years a teamster, freight handler, and proprietor of a passenger and express route from Amherst to Greenfield and neighboring towns, beginning before there were any railroads there, and continuing until a few weeks before his death. He was well known and esteemed by the students of Amherst College of fifty years ago, and by many of those who were there, or at the agricultural college, since that time.

Boston Prefers Native Fotatoes.

"It's a curious thing how particular Boston people are in the matter of potatoes," said a prominent dealer in produce yesterday. "They want the domestic varieties and they will have them if there are any on the market. In New York the situation is different. The folks there don't go into the question of origin; anything that's a potato goes. Now last week New York received something like 69,000 sacks of potatoes imported from Great Britain and Europe. In the same time probably not over 5000 sacks came to Boston. Then again in the matter of new potatoes, New York is now receiving potatoes from Bermuda, and the dealers are selling them at wholesale for from $5.50 to $6 per barrel. If you were to walk through the Boston produce market you might find a few of these Bermuda potatoes, but they would be mighty few.

"Boston has a curious and inalterable affection for the Aroostook product. That's why we haven't felt the slump in potato prices here that has occurred in New York recently. Heavy cargoes of foreign potatoes selling from $1.75 to $2 per sack caused a quite noticeable decline in the domestic prices. Here, while the price of native potatoes is about five cents per bushel less at wholesale than it was early in December, when a top notch price of 90 cents per bushel was obtained, the decline is nothing out of the ordinary for this season of the year. The present price is only a few cents higher than it was the first of November.

"There has been some shortage of the potato crop this year, but nothing like a famine is in sight. The shortage was largely in the West, but the New England and New York yield has turned out fairly satisfactorily, and the supply has been good enough to prevent the price from rising greatly. Grocerymen, who peddle out potatoes in small lots, are probably getting about $1 a bushel, which is not high for the last of January. This market takes up most of the Maine crop, while New York has been accustomed to depend upon the West and Southwest. So the willingness of New Yorkers to eat potatoes grown across the water has been a good thing for Boston. If it had not been for the good crops in Ireland and Belgium, which made it possible to ship large quantities to America, the light potato crop of Nebraska, Texas, Iowa, Missouri, Illinois and Indiana would have made it necessary for New York to encroach upon Boston's Maine preserve, and the people would have found potatoes at this time a luxury.

"Another reason why New York uses so many foreign potatoes is that the commission merchants find it cheaper to import potatoes than to bring them from the West. For instance, the freight rates from points in Michigan is above 50 cents on a barrel, while the ocean rate from Belgium on about the same weight is only 18 cents, and the highest ocean rate is 24 cents.

"Some idea of the importance of the potato as a staple of food may be gained from the number of bushels that are received. During six days ending yesterday 93,500 bushels came to Boston, and during the seven days previous to that period the receipts were 131,500 bushels. During the last five months Boston has received 2,200,200 bushels of potatoes. This is considerably more than was received in the same period last year, the receipts then being 1,160,500 bushels, but the increase may in part be explained by the high prices of other food staples, like beans."—Transcript

Importance of More Winter Fruits.

There is nothing so much in demand in winter as fruits, and to supply the markets of our large cities importers are going to all parts of the tropical world to secure variety and quantity. Our chief reliance, however, is placed on oranges and apples,—one a tropical fruit and the other a product of the temperate zone. If we could produce some other winter fruits that would add to the variety we would have an industry that would greatly add to the profits of farming. A good many of our fruits have in recent years been preserved in cold storage until long past their regular season. Pears, for instance, that formerly disappeared from market early in the fall, are now kept until he holidays. The warm Southern States are also endeavoring to supply the Northern markets with strawberries and similar delicate, perishable fruits in midwinter.

But the interesting question that concerns most horticulturists is whether we can adopt winter fruit growing as farmers have in recent years adopted winter dairying, winter lamb breeding and winter chicken production. In all of these we have completely changed the course of nature. With the incubator and brooder we now raise chickens and broilers in the middle of winter, and with steam-heated houses we raise hothouse lambs for winter use. Can we not in the same way make winter fruit raising profitable? In England and France they raise apricots, peaches, pears and similar fruits on the sunny side of walls, where they are so protected from cold winds that they yield heavy crops of fruits late in the season. Trees and vines cultivated in this country in a similar way would receive sufficient protection to make them produce far into our fall. Then, too, a very small protection would keep such a crop from being touched and injured by the cold. A canvas covering stretched from the top of such a wall to the ground or to poles beyond would save a crop of late fruits from a snow storm, and still keep the vines and trees green and healthy. If we built fires inside of these tent coverings we would give further protection to the choice fruits. In California they are raising oranges under tents, and in Florida they are beginning to do the same. In the North we are just beginning to appreciate the value of slight protection to our hardy peach, plum and grape trees and vines. It may be some time before we can raise more late fruits on a large scale in this way, but the subject is one worthy of careful thought and even experiment. In the future we may look for many changes in this respect, and improvements are bound to come that will startle some of us. S. W. CHAMBERS.

New York.

Dynamite and Nitro-Glycerine.

Dynamite is so little understood by the general public that it may be pertinent, in view of recent events in New York, to say that it is a mechanical mixture of a high explosive, nitro-glycerine, and a transporting medium, such as a siliceous infusorial earth. Nitro-glycerine was found to be too highly explosive for general practical use, and its discoverer, Nobel, invented dynamite as a safer form.

Dynamite has many peculiar qualities. Exposed to the air, it will, if ignited, burn slowly. If, however, confined, it will, if heated, explode with great force. Again, if confined in paper cartridges, the paper is liable to become saturated with the nitro-glycerine and renders it dangerous.

At low temperatures dynamite does not easily explode. While frozen it will not explode at all. Another peculiarity of dynamite that must be borne in mind is that it exerts its greatest force along the line of greatest resistance, thus differing from everything else of its kind. If exploded on a rock, it will not waste its power in the vacant air, but will rend the rock in a most thorough and businesslike way. It is this peculiarity which makes it so useful for blasting purposes. For a long time nitro-glycerine was extensively employed before the invention of dynamite became generally known. It is about five times as treacherous as dynamite. Even when surrounded by every safeguard, it will explode without warning.

The method of using it in iron mines and quarries was interesting. The charge would be enclosed in a small rubber bag, and when the hole was complete, this would be lowered into it by a string, very carefully. No fulminate is needed to detonate nitro-glycerine, so that all the operator needed to do was to sever the string and let the charge drop to the bottom of the hole. This he accomplished by igniting a piece of fuse bound around the string, which had been fastened to some stationary object.

Sometimes, too often, in fact, the bag dropped prematurely, and there would be two or three men the less on the pay-roll. Funerals were not elaborate, nor, indeed, at all general, after such happenings. In a case that came under the notice of the writer, all that was found of a 200-pound man who got mixed up with a charge of nitro-glycerine was one thumb, which was found hanging like a plum from a nearby tree. The rest seemed to have been dissipated into the organic elements.

Another instance happened right here in New York city, on Sedgwick avenue. While the new aqueduct was building there was a magazine containing an immense store of "nitro" and dynamite. The neighborhood was not thickly populated, and little apprehension was felt of any mishap. Still, a careful watchman was selected to guard the magazine night and day.

He slept in a small outbuilding, and made frequent rounds at night to drive away intruders. Afterward the neighbors said that he used to smoke while on duty. Perhaps so,—at all events, one fine, cold January midnight, when the ground was white with snow, the countryside for miles around was roused by the dull roar that precedes the crash of dynamite in action. Then followed broken windows and shattered ceilings. The magazine had "gone up." Up? No, not up—but rather down, for where it had stood yawned a great chasm in the ground. Not a stick of timber remained of the fabric.

As for the watchman, nobody has seen trace of him to this hour. There was not even a drop of blood on the snowy ground to tell his fate! There is no running away from dynamite when it gets started, for it transmits detonation at a rate of 21,000 feet per second.

The action of both "nitro" and dynamite is very freakish and uneven. In one case a "nitro" explosion hoisted a man twenty feet in the air, keeping him erect, and dropped him, still erect, just where he had stood. The only harm that came to him was a fracture of both heel bones when he landed.

This man's mate, who stood beside him, was blown literally clear through a paling fence and instantly killed. One man was blown into the air and the other blown along the surface of the ground. So far as observation went, both were exposed to exactly the same force, exerted in the same manner.—N. Y. Tribune.

Profit in Pigs.

One cannot hope to make swine a profitable farm product unless he goes permanently into the business. Too many who try to make money from swine find it unprofitable one year, and abandon it, or because after two years of fair success the third season proves unsatisfactory, they conclude that the best days for the business have passed, and they try their hand at something else. My experience has always been that swine breeding requires more persistent and continuous work than most other lines of farming. As a continuous business, carried on, not one or two or three years, but ten, fifteen and twenty years, it has no superior, and the man who pursues it thus will get his sure reward. Each succeeding year we learn more about the work and find out where we made mistakes and where we could have made improvements. We become so familiar with the whole subject that we are competent judges as to whether we should raise this or that breed. We also grow accustomed to anticipating the markets, which is a great thing in these days of fluctuations. Then, too, we learn how best to feed the animals—how to get the most from every ton of feed, grass or hay.

If one is going into swine breeding for a continuous industry, he can then well afford to start out with the best bred animals he can afford, and by an intelligent system of selection and breeding, he will in time grade up his flock to a standard of excellence which his neighbor cannot equal except at great cost. When a man starts in each year or two to purchase new breeds and high-bred swine, it is a costly experience, and he hardly reaps much reward from it. There is quite a difference, however, when he deliberately adds each year a little new blood to his stock, increasing the quality as well as the quantity. The outlay is thus small each season for pure-bred animals, and the returns correspondingly good.

Likewise in regard to food, it requires a policy of continuous farming along certain lines which will enable one to look years ahead. The grass, forage and grain crops that can be planned for an intelligent rotation system will all help toward the same general end. The cost of feeding will thus up to a certain point be steadily reduced. One finds good pasture fields established in the course of time, land made rich and fertile for corn and grain through a rotation of crops, and hay and forage crops prepared ahead of time for each winter. In the course of time the work becomes almost automatic, and the swine produce profits on the average from year to year that must prove satisfactory. E. P. SMITH.

The Variation in Cattle.

One of the most exasperating things which a breeder of cattle has to encounter is the variation in individuals which constantly crop up, and which in some instances prove exceedingly annoying. It is expected in breeding up a herd of scrub or common cattle to find a considerable variation in the individuals during the first few generations, but according to all laws of breeding this variation should become less noticeable each year as careful methods are followed. Some cattle appear to show a special tendency to considerable variation in the individuals. I remember particularly a good Berkshire sow which could be depended upon to bring about one inferior pig into existence in each litter. While all the others were up to the standard and showed remarkable uniformity of good breeding, one little fellow invariably inherited some poor tendencies from remote ancestors which condemned it. This tendency was not eradicated in some of the sow's progeny for two successive breedings which followed.

The variation in the individuals is, of course, one of the points which help the breeder in his work of selection. It is by discriminating between the excellence of the best and the poorest that we are enabled to mount to higher standards by persistent effort. Yet this tendency to individual variation is also the weak point in the chain. It is the opening in which the wedge of degeneracy can easily enter. Let the animal with poorest record and virtues be bred, and the poorest of her progeny likewise be selected for further breeding, and the downward course would be marked and rapid. Nature seems to have placed this as a stumbling block in the way of those who are not careful to make their selections according to merit. Whether accidental or otherwise the perpetuation of the breed depends entirely upon the selection of the best. If we once let down the bars there will set in a flood which will carry us down to the lowest depths. To understand this one should some day reverse the conditions usually followed in breeding. Take any fine breed and note the variation in the individuals, and select for the work the poorest of the lot. Then make each succeeding selection from the poorest for future breeding, and within a short time the stock bred will not be worth the keeping. Not only this, but the variation in the individuals will increase rapidly until it becomes almost remarkable. It is by careful selection that we eliminate this tendency to variation in the individuals, and to that alone must we trust.

PROF. A. S. DOTY.

New York.

Intensive Cultivation.

The cultivation of any crops depends for success largely upon the continuance of a system that has proved the best. A good many who accept the advice of intensive cultivation follow it just far enough to miss all the good, and then drop it. They find after a year or two of intensive cultivation that their profits have been reduced because of the extra outlay of time, labor and capital. Then they abandon the system, and return to less expensive methods. Now, intensive cultivation that is not progressively continued is a failure. In the first place, no farmer will get back profits from his extra efforts and expenses. He will have every reason to say that the system so much advocated today fails to make returns sufficient to warrant the continuance of the policy.

Intensive cultivation lays up for the future just as much as the improvement of a piece of property in a good neighborhood increases the valuation of the land for the future. One might make annual outlays for improving property, and not get actual returns for two or three years. So in the system of intensive cultivation the returns may be several years ahead. In the matter of the soil one finds that the land improves through intensive cultivation slowly but surely, and while we may not be able to see the improvement this year or next it will in time come. Some soils are in such poor condition that it requires at least two or three seasons to make them respond to intensive systems of culture. Likewise some crops do not respond quickly to the careful selection of seed and thorough cultivation.

Progressive, intensive cultivation returns in time profits just as surely as intelligent improvement of property of any kind increases the market valuation. The system must be adopted for a series of years, and then when once undertaken there should be no turning back. Each year will make the work easier, and also reduce the cost of carrying on the system. The soil that may need three or four plowings the first year may be able in the third and fourth years to respond just as well to two plowings as it did to four in the first. The question of selecting and choosing seeds is dependent upon the same system of progressive continuance. The man who abandons intensive cultivation after the second year of trial, is very apt to lose the profits that were due him in the third and fourth year. In other words he has cheated himself of the returns that were legitimately due him, and which would have come in the course of time in the regular way. ARNOLD WALDRON.

Iowa.

New York Markets.

Foreign potatoes in good supply, but vary much in quality. Domestic quiet, Maine prime $2.25 to $2.35 a bag, State, fair to prime $2 to $2.25 a bag and $2.25 to $2.37 for 180 pounds. German, good to fancy, 112-pound bags, $1 to $1.40. Belgian, 168-pound bag $1.65 to $1.75. Scotch, prime $1.75 to $1.90. Irish and English $1.75 to $1.85, poor to fair foreign $1.50 to $1.65. Sweet potatoes, South Jersey $3.50 to $4 a barrel. Onions in small supply and best grades firm. State and Western bags yellow $3 to $3.50, red $3.25 to $3.75. Orange County bags, red or yellow $2.75 to $3, Connecticut yellow $3.25 to $3.75 a barrel, red $3.50 to $4 and white $4 to $5.50. Beets $2 to $2.25 a barrel and carrots $1 to $1.50. Celery per dozen roots 10 to 50 cents, flat bunches 75 cents to $1 and California $3 to $3.50 a case. Russia turnips, Jersey 75 to 85 cents a box and Canada 75 to 85 cents a barrel. Squash $2.75 to $3 a barrel for Hubbard and $2.50 to $2.75 for Marrow.

Cabbages $2 to $4 per hundred for Flat Dutch, State $12 to $16 a ton, $1 to $1.10 for barrel crates. California cauliflowers $2 to $3 a case and Florida $1.50 to $3 for half-barrel-baskets. Sprouts 12 to 15 cents a quart. Norfolk kale 90 cents to $1 a barrel. Florida lettuce $1 to $2.50 a basket and other Southern 75 cents to $1.50. Norfolk spinach $2.50 to $2.75 a barrel. Bermuda parsley $2 to $2.50 a crate and romaine 50 cents to $1.25, with Florida $1 to $2 a basket. Havana okra $7 to $8 a carrier. Egg plant in half-barrel crates $5 to $7. Florida tomatoes $1.50 to $3 a carrier, and string beans quiet at $4 to $5.50 for crates or bushel baskets.

A light supply of hothouse products generally. Good to fancy lettuce scarce at 60 to 75 cents a dozen, poor to fair $1.50 to $2 a case. No. 1 cucumbers $1.50 to $2.25 a dozen and No. 2 at $3 to $4 a box. Radishes per hundred bunches $1.50 to $2.50 and rhubarb $4 to $5. Tomatoes 5 to 25 cents a pound and mushrooms good to fancy 25 to 40 cents, poor to fair 5 to 20 cents.

Apples are in light supply, with good demand for best grades and prices advanced on them. Spitzenberg prime to fancy $5 to $7.50 a barrel, Greening $4 to $7, King $4 to $6, Baldwin prime $4 to $5.50, Spy $3.50 to $5, York Imperial, Wine Sap, Gano and Ben Davis $3.50 to $4.50, fair to good red cooking apples $3 to $3.50. Cape Cod cranberries less abundant and higher, fancy at $7.50 a barrel, good to prime $6.50 to $7, poor to fair $3 to $5, Jersey fresh cleaned $5.50 to $6 a barrel and $1.60 to $1.75 a crate. Florida strawberries plenty, with small demand; 25 to 40 cents a quart, but must be extra in every way to get top price.

The Markets.

BOSTON LIVE STOCK MARKETS.

...ALS OF LIVE STOCK AT WATERTOWN AND BRIGHTON.

For the week ending Feb. 19, 1902.

	Cattle	Sheep	Shotes and Suckers	Fat Hogs	Veals
...week..2562		9503	60	28,359	1236
...week..3752		6627	90	24,417	1485

Prices on Northern Cattle.

...—Per hundred pounds on total weight of ...tallow and meat, extra, $6.00@6.75; first ..., $5.50@5.75; second quality, $5.00@5.25; ...quality, $4.00@4.50; a few choice single pairs, ...5.50; some of the poorest, bulls, etc., $3.00@ ... Western steers, 4¾@7¼c.

...S AND YOUNG CALVES—Fair quality, ...@38.00; extra, $40.00@48.00; fancy milch ...$50.00@65.00; farrow and dry, $12.00@27.00. ...RES—Thin young cattle for farmers: Year... $10@20; two-year-olds, $14@30; three-year... $22@40.

...EP—Per pound, live weight, 2½@3c; extra, ...; sheep and lambs per head, in lots, $2.50@ ...lambs, 4½@6¾c.

... HOGS—Per pound, 6¾@6½c, live weight; ..., wholesale —; retail, $2.25@8.00; country... ...d hogs, 7¾c.

...AL CALVES—3½@7¼c ℔ lb.

...IDES—Brighton—6¾@7c ℔ lb; country lots, 5½ ...

...ALF SKINS—65c@$1.30; dairy skins, 40@60c.

...ALLOW—Brighton, 4@5c ℔ lb; country lots, 2@ ...

...ELTS—50@75c.

	Cattle	Sheep	Hogs	Veals	Horses
Watertown..1472		9268	3,115	693	421
Brighton 1090		235	25,244	543	84

	Cattle.	Sheep.
Maine.		
At Brighton.		
Sturtevant & Haley	18	
Libby Bros.	30	
P A Berry	36	
Bal. of train	100	25
New Hampshire.		
At Brighton.		
A C Foss	6	
At N E D M & Wool Co.		
A F Jones & Co	12	300
J S Peavey	9	30
J E Eastman	8	
T Shay	12	16
Ed Sargent	9	26
At Watertown.		
Breck & Wood	19	171
W A Wallace	85	50
Vermont.		
At Watertown.		
A Williamson	33	
W E Hayden	5	
Fred Savage	23	
H N Jenne	6	16
N H Woodward	9	6
J Quinlan	20	
W G Townsend	9	13
A Fisher	1	16
G W Hall	5	
J S Henry	4	100
At N E D M & Wool Co.		
M G Flanders	8	1
B M Ricker	18	
F S Atwood	12	119
F Ricker	18	50

	Cattle.	Sheep.
Canada.		
At Watertown.		
J A Hathaway	120	
J Gould	100	
D Monroe	18	
W H Price	40	
F Hunnisett	40	
W Bicknell	19	
W Laveck	38	
Massachusetts.		
At Watertown.		
J S Henry	50	80
W A Bardwell	11	53
O H Forbush	11	
At Brighton.		
J S Henry	58	
H A Gilmore	20	
Scattering	90	
R Connors	23	
O H Forbush	9	
J P Day	30	
D A Walker	24	
Western.		
At Brighton.		
Swift & Co	360	
Morris Beef Co	154	
S S Learned	64	
Sturtevant & Haley	64	
W W Chamberlin	210	
At N E D M & Wool Co.		
Swift & Co	162	1116
N E D M & Wool Co	96	6300
At Watertown.		
D Monroe	72	
J A Hathaway	390	1075

Live Stock Exports.

It is well that shipments do not increase, taken from the exporters' standpoint, as prices have advanced on cattle 1c on best and ½c on undergrades, with late sales at 13½@14½c, d. w. Sheep are quoted at Liverpool at 12½@14½c, d. w. Boston shipments of the week, 1668 cattle, 2191 sheep and 53 horses.

Shipments and destinations: On steamer Cestrian, for Liverpool, 458 cattle, 608 sheep by Swift & Co.; 270 cattle by Morris Beef Company: 12 horses by E. Snow. On steamer Sarmatian, for Glasgow, 40 State and 18 Canada cattle by D. Monroe; 40 Canada cattle by W. H. Price; 40 Canada do. by F. H. Hunnesett; 19 Canada do. by W. Becknell; 38 Canada do. by W. Laveck. On steamer Bostonian, for London, 101 cattle by Morris Beef Company; 162 cattle, 508 sheep by Swift & Co.; 46 horses by A. Hawkes. On steamer Sagamore, for Liverpool, 230 State cattle and 1075 sheep and 1075 State sheep by J. A. Hathaway; 100 Canada cattle by J. Gould.

Horse Business.

Just a fair business week. Whatever dealers had at hand found ready sale, especially the better class for draft. The outlook good for March, say the dealers. Prices rule steady. At Cavanaugh Bros.' sale stable sold 1 express carload of drafters; being a short supply the demand was good. Auction sales quiet. At A. W. Davis's Northampton-street sale stable, sales of pacers and other valuable harness and saddle horses within the range of $500@90. At Moses Colman & Son's sale stable sold some high-priced saddle and harness horses at $185@125, with sales down to $18@20. At Meyer, Abrams & Co.'s sale stable, 5 carloads were sold mostly for business purposes, at $100@225, of 1000 to 1700 lbs. A few nearby horses at $25@95. At Welch & Hall's sale stable a fair winter trade, and good outlook for spring. Prices rule steady.

Union Yards, Watertown.

Tuesday—Contrary to expectation, the stock trains arrived at 8 A. M., notwithstanding the heavy storm. For beef cattle there was a fair demand. O. H. Forbush's stock did not arrive. Various lots of cattle changed hands, at ¼@½c better range than last week, consisting largely in steers and beef cows. W. G. Townsend sold 4 cattle, of 4380 lbs, at 4½c; 1 cow, of 740 lbs, at 2¾c. A. Williamson, 1 beef cow, 910 lbs, at 3¼c. J. Quinlan, 9 cows, of 7330 lbs, at 4½c. J. A. Hathaway sold 25 steers, of 1500 lbs, at 6¼c; 20 do., of 1475 lbs, at 6c; 25 do., of 1450 lbs, at 5¾c; 30 do., of 1425 lbs, at 5½c.

Milch Cows.

Fair disposals, at steady prices. A. Williamson sold 6 new milch cows, at $50 each, of fancy quality. Sales from $40@56.

Fat Hogs.

No change in price. Western at 6¾c, l. w.; ... hogs at 7¾c, d. w.

Sheep Houses.

...rly 9000 head for the week's supply. Some ...for export, some 2300 balance for home ... On best grades prices full ¼c advance; for ...ts no special change. H. N. Jenne sold a ...lot at 4½c. W. G. Townsend sold a good ... sheep and lambs, of 90 lbs, at 5c. N. H. ...ard sold 100-lb sheep and lambs, 4c. Breck ...l sent in 200 New Hampshire sheep and ...treet to slaughter.

Veal Calves.

...at firm prices. Best lots, 7@7½c. N. H. ...ard sold 106-lb calves, 6½c. A. Fisher, 110-...6½c. Sales at 6¾, 7@7¼c, as to quality.

Live Poultry.

...ons in mixed lots by the crate at 10½c lb.

Droves of Veal Calves.

...—Libby Bros., 50; P. A. Berry, 46; Balance ...200.

...Hampshire—A. F. Jones & Co., 76; G. S. ...13; T. Shay, 42; Ed. Sargent, 49; Breck & ... W. F. Wallace, 145.

...t—A. Williamson, 25; Fred Savage, 35; ...Jenne, 12; N. H. Woodward, 8; J. Quinlan, ...Fisher, 3; G. W. Hall, 7; J. S. Henry, 30; ...anders, 30; B. Ricker, 40; F. S. Atwood, 20; ...30.

...husetts—J. S. Henry, 125; W. A. Bardwell; ...scattering, 100; C. D. Lewis, 3; J. P. ...D. A. Walker, 14.

...ghton, Tuesday and Wednesday.

...at yards: 1090 cattle, 235 sheep, 25,244 ...calves, 84 horses. From West, 642 cattle, ...sheep, 25,190 hogs, 84 horses; Maine, 184 ...sheep, 7 hogs, 296 calves; New Hampshire, 6 cattle; Vermont, 4 cattle, 30 calves; Massachusetts, 2?4 cattle, 47 hogs, 217 calves.

Tuesday—Rather a slim market. The arrivals were light from the West in cattle and sheep. The best Western cattle cost ¼c higher, and our home butchers bought light, having some from New England to patch out. The Eastern train was snowed up and late at market; a light run from the East. A. C. Foss sold 2 steers, of 2070 lbs, at 4½c; 2 cows, 930@1000 lbs, at 3½c; 1 cow, 840 lbs, at 2c; 1 bull, of 870 lbs, at 2½c. J. P. Day, 20 beef cows, 1000 lbs, at 3½c; 4, of 700 lbs, at 2½c.

Milch Cows.

Traders were anxious to present a good supply this week of the better class, for which there was a good demand. Prices were generally sustained on all grades. Among the best sales were those by W. Cullen, of 10 fancy cows, at $60 a head. Libby Bros. sold 2 fine cows at $50 each; 5 cows at $40 each; 4 cows, $30@38. J. H. Henry sold milch cows from $35@55, as to quality.

Veal Calves.

A good demand and easy disposals. Soon the supply will increase, and easier rates will be effected. The range is from 3½@7¼c, unless in case of a choice Yorker, of 200 lbs, at 10c. C. D. Lewis sold 110-lb calves, 7c. J. P. Day, slim calves, 4c lb.

Late Arrivals.

Wednesday—Beef cows came in freely, and sold readily at fair prices at an early hour. Movement in milch cows could be improved, still for the better grades the demand was fully equal to last week. A good demand for beef cows probable next week. Harris & Fellows sold 28 milch cows, at a range of $30@60, including some quite fancy. Thompson & Hanson had in the best new milch cow from Maine; 1 Holstein at $75; 8 cows at $35@50. Libby Bros. sold cows at $50 down to $25, as to quality. A. W. Stanley, 2 oxen, of 4070 lbs, at 5¾c. J. S. Henry, 5 choice cows, $55; 2 at $50; 8 cows at $40@47.50; 4 cows, $35. O. H. Forbush sold beef cows at 4c, 3½c, 3¼c, 2¾c and 2½c. J. W. Ellsworth sold cows at 2@3½c. F. E. Keegan sold cows at 2¾@3½c.

Store Pigs.

Prices nominal, with small pigs $2.50@4; shotes, $5@8.

BOSTON PRODUCE MARKET.

Wholesale Prices.

Poultry, Fresh Killed.

Northern and Eastern—	
Chickens, choice roasting	18@20
Chickens, fair to good	12@14
Chickens, broilers	20@25
Spring ducks	12@15
Fowls, extra choice	14@
" fair to good	12@13
Pigeons, tame, ℔ doz	75@1 50
Squabs, ℔ doz	2 50@3 00
Western iced or frozen—	
Turkeys, com. to good	12@14
" young, choice	15@17
Ducks, spring	14@16
Geese, good to choice	10@12
Capons, choice large	16@17
" small and medium	13@15
Chickens, choice	12@14
Fowls, good to choice	12@13
Old Cocks	8@

Live Poultry.

Fowls ℔ lb	11@11½
Roosters ℔ lb	5@6
Spring chickens, ℔ lb	10@11

Butter.

NOTE—Assorted sizes quoted below include 20, 30, 50 lb. tubs only.

Creamery, extra—	
Vt. & N. H. assorted sizes	29@
Northern N. Y., assorted sizes	29@
Northern N. Y., large tubs	28@29
Western, asst. spruce tubs	29@
Western, large ash tubs	28@29
Creamery, northern firsts	26@27
Creamery, western firsts	25@27
Creamery, seconds	20@23
Creamery, eastern	20@27
Dairy, Vt. extra	25@
Dairy, N. Y. extra	24@
Dairy, N. Y. and Vt. firsts	22@23
Dairy, N. Y. and Vt. seconds	18@20
West. imitation creamery, small tubs extra	17@
West. imitation cr'y, large tubs firsts	14@16
" ladle firsts and extras	13@15
Renovated	18@23
Boxes—	
Extra northern creamery	29@29½
Extra western creamery	@
Extra dairy	25@26
Common to good	18@22
Trunk butter in ½ or ¼-lb prints	
Extra northern creamery	29@29½
Extra northern dairy	25@26
Common to good	18@22
Extra Western creamery	@

Cheese.

New York, twins, extra new ℔ lb	11½@11¾
" " firsts ℔ lb	9½@10½
" " seconds	8@9
Vt. twins extra ℔ lb	11@11½
" firsts ℔ lb	9½@10½
" seconds ℔ lb	8@9
New Ohio Flats, extra	9@10
Western twins, extra	10½@11
Western, fair to good	9@10

Eggs.

Nearby and Cape fancy, ℔ doz	37@38
Eastern choice fresh	37@
Eastern fair to good	34@36
Michigan fancy fresh	37@
Vt. and N. H. choice fresh	37@
Western fair to good	34@36
Western selected, fresh	36@37

Potatoes.

Aroostook, Hebron, ℔ bu	75@80
" Green Mountain, ℔ bu	78@83
" Rose	75@
" Dakota Red	68@78
" P. E. I. Chenangoes	65@68
" Scotch Magnums 168-lb sack	2 00@

Green Vegetables.

Beets, ℔ bu	75@85
Cabbage, native, ℔ bbl	1 50@
Carrots, ℔ bu	50@
Parsnips	60@80
Lettuce, ℔ long box	1 00@2 00
Cucumbers, ℔ 100	15 00@18 00
Onions, Western Mass. ℔ bbl	3 25@3 75
" Natives, ℔ bu	1 30@1 40
" Spanish, ℔ crate	3 50@
" Bermuda ℔ crate	2 40@2 50
Parsley, ℔ bu	2 50@2 75
Radishes, ℔ doz	25@
Squash, Hubbard, ℔ ton	80 00@100 00
Marrow, ℔ ton	70 00@80 00
String beans, Southern, ℔ crate	4 50@5 50
Spinach, Baltimore, ℔ bbl	@
" Norfolk, ℔ bbl	3 25@
Spinach, ℔ box	1 00@
Turnips, flat, ℔ box	35@45
Turnips, yellow, ℔ bbl	75@90
Tomatoes, hothouse, ℔ lb	30@35
" Fla., ℔ crate	3 00@3 50

Domestic Green Fruit.

Apples, King	4 50@5 50
" Ben Davis	3 50@4 00
" Spy	4 00@5 00
" Baldwins No. 1	4 00@5 00
" Gano	4 25@
" Greening, No. 1	3 75@4 25
" Talman Sweet	2 50@3 50
" Baldwin and Greening, No. 2	3 25@3 75
" Other No. 2	2 25@3 25

Hides and Pelts.

Steers and cows all weights	6@6¼
Bulls	5¼@6
Hides, south, light green salted	7¼@
" " dry flint	14@14½
" " salted	12@12½
" buff, in west	7@8¼
" " salted ℔ lb	7¼@8¾
Calfskins, 5 to 12 lbs each	1 10@1 55
" over weights, each	1 75@2 10
Deacon and dairy skins	50@70
Lambskins each, country	35@50
Country Pelts, each	65@

Dried Apples.

Evaporated, choice	6@7¾
Evaporated, prime	6¾@6¾
Sun-dried, as to quality	3@4½

Grass Seeds.

Timothy, ℔ bu., Western, choice	3 35@3 45
" prime	3 25@
Clover, ℔ lb	10@12
Red Top, Western, ℔ 50 lb sack	2 25@2 75
" fancy recleaned, ℔ lb	10@14

Beans.

Pea marrow, choice, H. P	1 80@
Pea screened	1 60@1 70
Pea seconds	1 40@1 50
Pea N. Y. and Vt., small, H. P	@
Pea Cal. small white	2 50@2 75
Pea foreign	1 65@1 75
Mediums, choice hand-picked	1 80@1 85
Mediums, screened	1 65@1 75
Mediums, foreign	1 65@1 75
Yellow eyes, extra	2 30@2 35
Yellow eyes, seconds	2 15@2 25
Red Kidney	2 10@2 25
Lima beans dried, ℔ lb	6@

Hay and Straw.

Hay prime, bales	17 00@
" No. 1, ℔ ton	15 50@16 00
" " 2 "	14 00@15 00
" " 3 "	11 00@12 00
" fine choice	12 00@13 00
" clover mixed ℔ ton	12 00@14 00
" clover, ℔ ton	11 00@13 00
" swale, ℔ ton	8 00@ 9 00
Straw, prime rye	15 50@16 00
Straw, oat, per ton	8 50@ 9 50
Straw, tangled rye	11 00@12 00

FLOUR AND GRAIN.

Flour.—The market quoted quiet.
Spring patents, $4.00@5.00.
Spring, clear and straight, $3.20@4.00.
Winter patents, $4.25@4.75.
Winter, clear and straight, $3.90@4.50.

Corn Meal.—The market is steady at $1 35@1 37 ℔ bag, and $2 75@2 80 ℔ bbl; granulated $3 40@3 75 ℔ bbl.

Graham Flour.—Trade continues quiet, with the market quoted at $3 00@4 50 ℔ bbl.

Oat Meal.—Quoted lower, $4 90@5 25 ℔ bbl. for rolled, and $5 30@5 65 for cut and ground.

Rye Flour.—The market is quoted at $3 10@3 75 ℔ bbl.

Corn.—Demand is quiet, with prices lower.
No. 2, yellow, spot, 70½c.
No. 3, yellow, 70¼c.
New yellow for shipment, 69¾c.

Oats.—Quiet and lower.
Clipped, fancy, spot, 55@56c.
No. 2 clipped white, 52@53c.
No. 3 clipped, white, 51½c.

Millfeed.—The market is lower for winter grades.
Winter wheat, bran sacks, $22 75.
Winter wheat, middling sacks, $23 25@24 25.
Spring wheat, bran sacks, $21 50.
Spring wheat, middling sacks, $21 50.
Cottonseed meal for shipment, $27 00.

Malt.—The market is steady with trade ruling dull.
State grades, 6-rowed, 65@72c.
State, 2-rowed, 62@67c.
Western grades, 70@75c.

Barley.—Quiet demand, with prices higher at 60@76c for No. 2 6-rowed State, and 45@60c for No. 2 2-rowed State. Feed barley, 55@65c.

Rye.—Quiet, $3.05@3.60 ℔ bbl, 55c ℔ bushel.

THE WOOL MARKET.

Unwashed fleece, fine, Michigan	17½@18
" " " Ohio	19@20
" " ½-blood "	21½@22
" " ⅜-blood "	21½@22
" " ¼-blood "	21@
Fine delaine, Ohio	28@29
" " Michigan	26@
Washed fleece	20@27

HOLSTEIN-JERSEY CROSS.—D. H. Thing, Mt. Vernon, Me.: As we have seen the results several times of the use of a Holstein bull on Jersey cows, we would say that we have not a very good opinion of such a cross. The heifers that resulted were little, if any, larger than their Jersey mother, nor did they give as much milk at four years old as she had given, or hold out to give milk as long before calving. The milk did not show as much cream as good Jersey cow's milk, though two of them at least we know to have been well fed up to four years old. Whether the cross of Jersey bull on Holstein cows would be better we do not know, as we have not seen it tested, though we have seen unfavorable reports of it in some of the Western papers we receive. We do not like a cross between two pure breeds that differ widely in character, as there always seems to be a struggle as to which shall predominate. If the bull is pure bred and the cow a grade, he will generally fix the character of the calf in almost every point but the size, and sometimes a modification of the shape enough to usually mark the distinction between the pure bred and the grade. And this is as true of other animals as of the cow, and bulls so far as we have seen them tried. The cross between Guernsey and Jersey or between Hereford and Shorthorn would be less violent, and would probably result in retaining the butter qualities in the one cross and beef qualities in the other.

BREEDING SEED CORN.

The partial failure of corn crop last year has led many to take an interest in the possibility of breeding better seed corn. We certainly hope they will do so, and get corn that will grow more vigorously and yield more abundantly, if not earlier, so as to avoid frosts. But the power to resist drought is more important, and that must depend more upon a thrifty, well-rooted plant from a seed that throws out strong roots, and upon proper cultivation and the preparation of the soil than upon anything else. We have seen quite frequently recently in exchanges from what are known as the corn-growing sections the suggestion that corn growers should each year go through their cornfields and cut the tassels from the barren stalks or those which had no ears, that they might induce the habit of growing an ear on each stalk after a few years of such practice. This idea we think was first advanced by the late Dr. E. L. Sturtevant when he published the Scientific Farmer, but we also think that he abandoned it, or grew doubtful about its value after a few years trial, and while those who wish may experiment with it, we advise them to go slowly, and test it on but a small part of their corn crop, using seed from that by the side of seed from others not so mutilated. The tassel is the male blossom, and we think it is more vigorous on the plants that have no ears. To cut it from all such might prevent perfect pollenization of the silk in some seasons, if not in all.

TOP-DRESSING GRASSLANDS.

An English authority says that two tons of meadow hay removes as much nitrogen, phosphoric acid and potash from the soil as would be supplied by 3½ hundredweight of nitrate of soda, 4½ hundredweight of kainit, and 1¼ hundredweight of 25 per cent. superphosphate, with about half a hundredweight of lime. If any one wishes to take this as a guide let them remember that the English hundredweight is 112 pounds, as their ton is the long ton of 2240 pounds, by which coal dealers buy, but do not sell. But the same authority says that one hundredweight of nitrate of soda, two hundredweight of 25 per cent. of supersphophate and two hundredweight of kainit to the acre should give good results. The writer is evidently in error when he speaks of 25 per cent. superphosphate, because we know of no material among the phosphates that after treating with acids can show over 16 per cent. phosphoric acid, and few show over 12 to 14 per cent. available, and until it reaches the available form it is phosphate and not superphosphate. The amount desired in potash could be bought for less money and more easily handled in this country in 50 pounds of muriate of potash, about 52 per cent. actual potash, than in 224 pounds of kainit, 11 to 13 per cent. potash. The phosphate, especially if not an acid phosphate, and the potash should be applied late in the fall or early in in the spring, and the nitrate of soda in a dry day when the grass begins to start. Do not put it in the grass when wet with rain or dew. We would prefer to use acid phosphate, and double the amount unless on rich muck land, than the undissolved phosphate.

TOP-DRESSING GRASS LANDS.

At the school of practical agriculture and horticulture at Briar Cliff Manor, New York, they tried several chemical fertilizers for putting on grass land. They were applied April 2, 1901. A plot left without manure or fertilizer yielded 2040 pounds per acre, worth $15.30. Plot 2 had 142 pounds nitrate of soda, costing $2.62, yield 3840 pounds, worth $28.80, profit $10.88. Plot 3 had 112 pounds nitrate of soda, costing $3.30, yield 3180 pounds, worth $12.65, profit $5.85. Plot 4, 4.25 pounds kainit, costing $2.25, yield 1608 pounds, worth $12.06, a loss of $5.49. Plot 5 had 100 pounds of muriate of potash, costing $2.15, yield 1812 pounds, worth $1359, a loss of $3.86. Plot 6 had 240 pounds sulphate of potash, cost $2.40, yield 2624 pounds, worth $1941, profit $1.71. Plot 7 was dressed a little later in April with a mixture 142 pounds nitrate of soda, 112 pounds muriate of potash and 250 pounds acid phosphate, 16 per cent. soluble. This cost $9.77, yield 4544 pounds, worth $34.08, at a profit of $9.01. Plot 8 had the same, excepting that 112 pounds sulphate of ammonia was used instead of the nitrate of soda, cost $10.45, yield 4600 pounds, worth $34.50, profit $8.75. Plot 9 had eight tons of barnyard manure, valued at $10.40, yield 3580 pounds, worth $26.85, profit $1.15. They say that they would have obtained better results from the sulphate of ammonia if some lime had been used with it, and probably better results from the kainit and the potash salts if they had been applied in the fall instead of so late in the spring. Also that the mixtures would probably have shown better results if used earlier in the spring. To this we would add that without doubt the manure would produce much better results if it had been applied in the fall. We are convinced that if all these plots are tested without fertilizers for a term of years, that the mixtures of fertilizers and the plot with manure will show permanent improvement, perhaps for several years, while those which had but a single chemical will show but little improvement, and may even produce less next year than the plot not fertilized at all. We are not sure if the manure or mixed fertilizer will last the longer.

Save the calves by having on hand Hood Farm Calf Scour Cure and Digestive Powder. C. I. Hood Company, Lowell, Mass.

J. Walter Lovatt, president of the Bethlehem Fair Association, has one of the finest stables of crack driving horses in the Keystone State. Mr. Lovatt owns Kate McCracken (2.11¾), and he says she is a great snow mare.

FARMERS' WANTS
ONE CENT A WORD

Farmers' Want Department is established to allow the sale and exchange of Stock, Seeds, Fruits, etc., also Help or Situation Wanted. There is a charge of one cent per word only, including name, address or initials. No Display. Cash to accompany the order.

WANTED—Two middle-aged, Protestant women, one for cook, one to wait on table, sweep and dust, in home for sixteen aged men, 16 miles from Boston; must be good cook. Good wages. Send references to BLAKIE, Box 2314, Boston.

FOR SALE—200 egg Prairie State Incubators; 100 egg Prairie State Incubators, good as new; out-door brooders. Original Ideas, warranted to bring up strong, healthy chickens; first-class yearling breeding cocks from our Hawkins strain, pure-bred, royal blue-barred Plymouth Rocks. Orders booked now for eggs for hatchings. Illustrated circular on application. HASKELL POULTRY COMPANY, 71 Claremont avenue, Arlington Heights, Mass.

WANTED—Farm managers, herdsmen, gardeners, creamerymen, etc. We represent employers from Maine to California, who want competent men with good references. RURAL SCIENCE AGENCY, Durham, N. H.

FOR SALE—Fifty pairs of good homing pigeons, fifty cents a pair, has too many; also good bay horse, nine years old this spring, good roadster, weight 1200 pounds, gentle, price $150, cheap. BOX 431, Warren, Bristol County, R. I.

WANTED—A practical working farmer, married, who can take hold of 35 acres of arable land and raise hay and other crops, look after cattle and manage the same for joint account. House conveniences all ready, land now tilled for hay, suitable for development into paying dairy; am willing to pay salary to good manager not afraid of work. Address with experience and credentials BOX 105, Rowayton, Ct.

WANTED—Married man with experience to work on farm. Must be good milker and teamster. Tenement, four rooms. Preference to nearest. FRANK COBURN, Wakefield, Mass.

WANTED—A respectable girl for cooking, washing and ironing. Private family of five persons. Wages $5 per week. JOHN D. HASS, Box 146, West Stockbridge, Mass.

WANTED—Married man on farm, good milker, no liquor or smoking, wife to work a little, tenement, reference. No children. D. E. TAYLOR, Dudley, Mass.

FOR SALE—Retail milk route of some sixty customers in suburbs of Boston. Address G. H. W., Box 2314, Boston, Mass.

MAMMOTH Light Brahmas, 10 to 14 pounds at maturity. Great winter layers. K. S. HAWK, Mechanicsburg, O.

WORKING farmer of experience and good habits; will have charge of place occupied by owner only portion of year; first-class references required; good care of stock and good garden essential; no liquor or profanity allowed; separate house for farmer's family; apply in own handwriting, stating age and family. Address BOX 1462, Providence, R. I.

WANTED—Big, active boy 14 or 16, general work; or temperate man liking work, with plenty of "get there" in him. CREAMERY, South Britain, Ct

WANTED—Married man to work on poultry and fruit farm; must be able and willing to work. R. G. BUFFINTON, Fall River, Mass.

WANTED—On farm in village, a woman to do general housework; give references; write particulars. F. W. KELLOGG, Benson, Vt.

WANTED—A buttermaker by the Windham County Creamery Association. Address E. C. STILES, Secretary, Newfane, Vt.

WANTED—Working partner in poultry business; tenement; give references. BOX 201, Marlboro, Mass.

WANTED—A strictly temperate man for milk team; must be a good milker. BOX 289, Brockton, Mass.

I want good young man to work in sawmill; chop or drive horse team. E. M. PURDY, Wilton, N. H.

MAN and wife and single man wanted on farm. CHARLES D. SAGE, North Brookfield, Mass.

WANTED—Man and wife to work on farm; state ages and wages. BIDWELL, Monterey, Mass.

WANTED—Single man on dairy farm; state wages. A. J. PIERPONT, Waterbury, Ct.

RELIABLE foreman on farm, married. BOX 284, East Greenwich, R. I.

YOUNG man, high-school education, returned from army, desires situation working with successful modern dairy (butter) farmer to learn business; understands horses; reasonable wages expected. BOX 15, Webster, Mass.

WANTED—April 1 or sooner a first-class almshouse to superintend. Town or city; years of successful experience; best of references. BOX 123, Uxbridge, Mass.

AMERICAN man with wife would like a place as foreman of farm; both willing to work and understand farming. Address BOX 40, Willimansett, Mass.

YOUNG woman, 32, farmer's daughter, wants housekeeper's position; likes children; country preferred; any distance. BOX 1067, Springfield, Mass.

SITUATION wanted by young man, 20, in country store; good references. FAUST, Box 97, Mansfield Centre, Ct.

WANTED—Situation farmer, teamster, sawmill man; good, reliable man. ALFRED RICE, Cheshire, Ct.

MAMMOTH Bronze Turkey Toms, 25 to 30 lbs, by 97-point tom. B. P. Rock ckls. and Poland-China swine of the leading strains. A. H. MANN, Eldena, Ill.

POLLED Durhams. Bulls of serviceable age for sale. Herd bulls having 22 polled crosses, 28 months old. A. E. BURLEIGH, Knox City, Knox Co., Mo.

ONE Webster & Hannum Bone Cutter for exchange. Worth $25; never been used. KENT, Box 3254, Boston.

A GRAPHOPHONE and records, camera, double-barrel gun, rifle or bicycle or anything in the poultry line. BOX 1014, Rockville, Ct.

RELIABLE young man (22) understanding care and management of standard and egg poultry, incubators, brooding, feeding chicks, etc., wants situation. Could become working partner on good-sized plant. ARTHUR O'CONNELL, Modena, Pa.

WOODLAND Shorthorns, number 150 head. Bulls, cows and heifers of all ages for sale at all times. W. I. WOOD, Williamsport, O.

20 HEAD Stallions—Shires, Percherons, Belgians, Clydes and one Coach horse. A. LATIMER WILSON, Creston, Ia.

FOR SALE—A water and steam power corn, feed and sawmill, with sufficient building for flouring machinery; two good dwelling houses, with 31 acres of good land. Situated in one of the healthiest, best corn and wheat-growing sections in the State. Want to change occupation on account of poor health. For further particulars address J. R. L. CHAMBLIN, Philomont, Loudoun Co., Va.

FOR SALE—Nine registered Aberdeen-Angus bulls, 6 to 12 months old. Individual merit and breeding the best. JOHN L. GAISER, Charleston, Ill.

BUFF Cochins; young and yearling stock for sale. C. J. L. WARE, South Keene, N. H.

Commonwealth of Massachusetts.

MIDDLESEX, SS.

PROBATE COURT.

To all persons interested in the estate of EMMA P. CLARY, late of Brooks, in the County of Waldo and State of Maine, deceased, or in the personal property hereinafter described, and to the Treasurer and Receiver-General of said Commonwealth.

WHEREAS, Alice G. Clary, appointed executrix of the estate of said deceased by the Probate Court for the County of Waldo, in the State of Maine, has presented to said Court her petition representing that as such executrix she is entitled to certain personal property situated in said Commonwealth, to wit: Deposit No. 46,790 in the City Institution for Savings, Lowell, and Deposit No. 26,409 in Haverhill Savings Bank, and praying that she may be licensed to receive or to sell by public or private sale on such terms and to such person or persons as she shall think fit, or otherwise to dispose of, and to transfer and convey said estate.

You are hereby cited to appear at a Probate Court, to be held at Cambridge, in said County of Middlesex, on the eleventh day of March, A. D. 1902, at nine o'clock in the forenoon, to show cause, if any you have, why the same should not be granted.

And said petitioner is ordered to serve this citation by publishing the same once in each week, for three successive weeks, in the MASSACHUSETTS PLOUGHMAN, a newspaper published in Boston, the last publication to be one day, at least, before said Court, and by delivering a copy of this citation to said Treasurer and Receiver-General fourteen days, at least, before the said return day of said petition.

Witness, CHARLES J. MCINTIRE, Esquire, First Judge of said Court, this thirteenth day of February, in the year one thousand nine hundred and two. S. H. FOLSOM, Register.

Commonwealth of Massachusetts.

MIDDLESEX, SS.

PROBATE COURT.

To the heirs-at-law, next of kin, and all other persons interested in the estate of MARY MARTIN, late of Woburn, in said County, deceased.

WHEREAS, a certain instrument purporting to be the last will and testament of said deceased has been presented to said Court, for Probate, by James E. Kelley of Wilmington, in said County, who prays that letters testamentary may be issued to him, the executor therein named, without giving a surety on his official bond.

You are hereby cited to appear at a Probate Court to be held at Cambridge, in said County of Middlesex, on the fourth day of March, A. D. 1902, at nine o'clock in the forenoon, to show cause, if any you have, why the same should not be granted.

And said petitioner is hereby directed to give public notice thereof, by publishing this citation once in each week, for three successive weeks, in the MASSACHUSETTS PLOUGHMAN, a newspaper published in Boston, the last publication to be one day, at least, before said Court, and by mailing, postpaid, or delivering a copy of this citation to all known persons interested in the estate, seven days, at least, before said Court.

Witness, CHARLES J. MCINTIRE, Esquire, First Judge of said Court, this eleventh day of February, in the year one thousand nine hundred and two. S. H. FOLSOM, Register.

Commonwealth of Massachusetts.

MIDDLESEX, SS.

PROBATE COURT.

To the heirs-at-law, next of kin, creditors and all other persons interested in the estate of GEORGE T. CLARK, late of Newton, in said County, deceased, intestate.

WHEREAS, a petition has been presented to said Court to grant a letter of administration on the estate of said deceased to Augustus T. Clark of Newton, in the County of Middlesex, without giving a surety on his bond.

You are hereby cited to appear at a Probate Court to be held at Cambridge, in said County of Middlesex, on the fourth day of March, A. D. 1902, at nine o'clock in the forenoon, to show cause, if any you have, why the same should not be granted.

And the petitioner is hereby directed to give public notice thereof, by publishing this citation once in each week, for three successive weeks, in the MASSACHUSETTS PLOUGHMAN, a newspaper published in Boston, the last publication to be one day, at least, before said Court.

Witness, CHARLES J. MCINTIRE, Esquire, First Judge of said Court, this tenth day of February, in the year one thousand nine hundred and two. S. H. FOLSOM, Register.

Commonwealth of Massachusetts.

MIDDLESEX, SS.

PROBATE COURT.

WHEREAS, GRACE A. MORAN of Natick, in said County, has presented to said Court a petition praying that her name may be changed to that of Grace Webb for the reasons therein set forth:

All persons are hereby cited to appear at a Probate Court, to be held at Cambridge, in said County of Middlesex, on the twenty-fifth day of February, A. D. 1902, at nine o'clock in the forenoon, to show cause, if any they have, why the same should not be granted.

And said petitioner is hereby directed to give public notice thereof, by publishing this citation once in each week, for three successive weeks, in the MASSACHUSETTS PLOUGHMAN, a newspaper published in Boston, the last publication to be one day at least before said Court.

Witness, CHARLES J. MCINTIRE, Esquire, First Judge of said Court, this twenty-ninth day of January, in the year one thousand nine hundred and two.

S. H. FOLSOM, Register.

NOTICE IS HEREBY GIVEN that the subscriber has been duly appointed administrator of the estate of WATSON B. WEEKS, otherwise called Watson Weeks, late of Stanstead, in the Province of Quebec, deceased, and has taken upon himself that trust by giving bond, and appointing Charles H. McIntyre of Boston, his agent, as the law directs.

All persons having demands upon the estate of said deceased are required to exhibit the same, and all persons indebted to said estate are called upon to make payment to the subscriber.

Address care of Charles H. McIntyre, 209 Washington street, Boston.

LOUIS WEEKS, Administrator.

Boston, Mass, Feb. 6, 1902.

STALLIONS For Sale—One black Percheron, 4 year old, unsurpassed for style and action; 1 Shire years old, a grand individual and breeder; sire, Wenona Albert. Also 1 high-grade Shire yearling. J. H. RICHERT, Mendota, Ill.

OXFORD Down and Cotswolds kept on separate farms 20 miles apart. Rams and ewes of each breed for sale. A. LATIMER WILSON, Creston, I

CAYUGA Ducks of the finest quality at $2. ALBERT NYE, New Washington, O.

Our Homes.

The American Ideal.

During the coming week occurs the birthday of Abraham Lincoln. In this section of the country this day has not heretofore been regarded as of sufficient significance to be celebrated, except in a small way, by clubs or veteran organizations. At this time a movement is being forwarded to have this day made a national holiday, and much interest in the outcome is manifested.

As that trying period in our country's history, the civil war, fades into the past, old feuds and antipathies are relegated to oblivion, and we rejoice in the spectacle of a united country, even during the lifetime of those who were once such bitter enemies. And from out the past we seem to see a peculiarly rugged face, sad, yet kindly, and hear his voice say, as in the days of stress and trial, "With malice toward none," and we know that he was one of the truly great, an example for coming generations of Americans, and especially for the children of other climes, who need the inspiration such a personality can give to infuse into their consciousness the true American ideal.

Perhaps to a greater degree than any other, Abraham Lincoln realized this ideal. Born of the people, with but scanty opportunities for the acquirement of education, yet he rose to the full stature of American manhood, and served his country in her hour of need as perhaps no other could have done.

Is it not well that such a personality, such an example of the best type of manhood, should be upheld in such a way that his life shall become the model of the truest patriotism which our institutions call forth?

But whether his birthday becomes a holiday or not, there is at least an opportunity presented for patriotic teaching which should not be lost sight of. In the home, in the schools, the young minds may easily become impressed by the example of such a life when properly presented to them.

The patriotic societies, in spite of the charges of self-glorification and ancestor worship, are doing excellent work along these lines, and it has been gratifying of late to note that some of the descendants of Revolutionary heroes have been urging the making of Lincoln's birthday as a holiday, and giving testimony to the great worth of this simplest, most unassuming of men.

The descendants of the veterans of the civil war do not need another holiday to remind them of the past, or to teach them patriotism, which is an inheritance, and has been fostered by the stories of parents or grandparents which they have listened to in childhood. But these are but a small part of the future citizens of our land. The enormous emigration from many countries has changed our population greatly in the large cities, and in the schools of such much work remains to be done, for in the homes of many of the pupils the traditions are of a very different sort.

Yet, even in the homes where the American ideal is an inheritance, the altar fires should be kept brightly burning, for in these busy days of commercial competition and scrambling for power, it is not difficult lose sight of ideals of whatever sort, and, perhaps a pause for a day, to contemplate the life of such a man as Abraham Lincoln, may be of great benefit.

ELIZABETH ROBBINS BERRY.

The Workbox.

AN EVENING HEAD WRAP.

The materials for this pretty light wrap are one and one-half yards of white point d'esprit (dotted lace) 1 yard in width, 3 skeins of Germantown yarn, also an ordinary blunt worsted needle.

Pink is pretty for the yarn, but if you use white be sure it harmonizes with the white of the lace.

Baste a hem a quarter of an inch wide across the ends and the length of the sides. Thread the worsted needle with a convenient length of the wool (rope silk may be used if preferred), and run across the lace from side to side, passing the needle under each dot of the lace. Draw the wool through the needle, and so have the wool that goes under the dots double. Be particular not to draw up the lace or strain the wool. When the lace is covered in this way cut the wool between the dots, thus giving an effective feathery effect.

Buttonhole sides of the wrap, then buttonhole edges. Into these edges make a finish of chain crochet, about eleven rows.

EVA M. NILES.

Care of Table Linens.

Ownership of fine table linen is a matter of honest and pardonable pride to every woman. It is a pity that its durability and its beauty are at the mercy of her servants. From the moment the damask is removed from the table to the time when it is returned to the linen closet, presumably not always actually glossy, spotless and accurately folded, it is constantly exposed to harmful mishandling by careless or ignorant maids.

Until their mistress takes the time to teach them that care that her linens require, all sorts of things are liable to occur. The napkins or tablecloth upon which water has been spilled, instead of being hung up to dry, will be thrust into the bag or basket where soiled linens are kept, and soon smothered under the pieces that follow it. Within two or three days, earlier if the weather is warm, colonies of microscopic creatures that gather apparently from nowhere pre-empt the damp folds and speedily raise a green crop of mildew that is eradicable only by the use of an alkali that necessarily injures the textile it touches.

Stains that have been made by the spilling of food of various kinds are not attended to before they are thrust into the washtub; yet the process of laundering would be quicker and result more satisfactorily if the spots were removed as soon as possible after they have been made.

Grease spots spread and become putrid, their odor attracting mice, whose hungry little teeth may work sad havoc ere they are discovered. Spots of iron rust make their appearance with a frequency as remarkable as it is unaccountable. What is worse, no amount of inquiry and no end of cautioning and faultfinding on the part of her who owns the linen lessen it in the slightest degree.

The washboiler is spotless; the metal work on the clothes wringer perfectly galvanized; rope clotheslines are substituted for the wire ones, the faucets in the tubs are of copper; the stopper and chain galvanized; consequently suspicion in these quarters is groundless. The wash basket is guiltless of nails and the clothespins are of wood. The solution of the mystery seems hopeless, and rust spots continue their disfiguring work.

Few, indeed, suspect the service trays of japanned ware and the steel table knives, yet they are very often at the bottom of it, literally as well as figuratively.

A pile of knives is awaiting scouring, and some one tosses a damp and crumpled napkin upon them; a glass of water is upset on a metal tray, no longer new, and the wet cloth beneath is left to dry where it is; a pitcher of icewater or a cold siphon is left on a napkin-covered tray all night, the moisture that gathers on its surface slowly dripping downward. Any or all of these may be at fault, for the contact of water and iron tends to oxidation of the latter, and rust is speedily formed. At first it may be scarcely perceptible, so faint is the yellow tinge, but with continued contact the color gradually deepens, and washing serves only to set it the more firmly.

Medicine often contains iron in solution, and when some of it is spilled on linen or lips wet with it are wiped with a napkin the brown stain peculiar to iron rust is sure to appear. A similar stain is caused by the mingling of starch and a chemical used in the manufacture of inferior wash blue. Nothing but the best blueing should be used for this reason.

The special uses to which linens are put in the household render them liable to stains of all kinds, but with ordinary attention these may be removed before they have fastened themselves permanently. Different kinds of stains require different methods of treatment. When fresh, most of them will yield to harmless measures, but when well dried in, like ink, mildew and rust, they need the action of an acid or of an alkali. Either of these powerful agents will injure the fabric unless handled with rapidity and quickly rinsed in water.

Just as a stitch taken in time will save nine, so will the removal of a spot from a tablecloth often save it from a course through the washtub. Where the laundering is done at home, the saving thus effected may be considerable. The spot of chocolate or coffee, the stains of red wine or of fruit juice may be removed in a moment, when the meal is over, by the simple process of stretching the cloth over a bowl and pouring boiling water through the discoloration. If the wine stain is deep, cover it with salt before scalding.

When the wet spot is half dry a few passes with a hot iron will speedily restore the cloth to proper condition for use. French chalk will often draw out a grease spot not too extensive.

The servant to whom the table linens are intrusted must be taught to carefully inspect each piece before it goes into the receptacle for soiled linens. Not only is time saved by the removal of stains before the linens go into the general wash, but frayed spots are sought and, when discovered, reinforced by careful darning, thus staving off an unsightly rent.

All laundresses know that javelle or chlorine water, salts of lemon and bleaching powder will eat holes into linens unless the latter are repeatedly rinsed in boiling water. But they fail to realize that the rinsing ought to follow instantly after the application of the alkali or the acid, or it is of little use. Housekeepers should impress this fact upon them, or, better still, require them to have the boiling water at hand before beginning operations.

Embroidered linens must always be ironed from the wrong side, in order to throw the pattern in relief. If worked in colors, they are too delicate for ordinary washing. It is therefore best to do them separately, and to obtain the best results, they must be dipped up and down in tepid soapsuds, hung to dry indoors, and ironed when half dry. If stiffening is considered desirable, gum arabic dissolved in water, or a very thin solution of clear starch answers the purpose.

Obstinate stains in embroidered linens are not of frequent occurrence, but accidents are liable to happen.

Eradicate grease by moistening the spot with ammonia water; then place a clean blotter below the spot, and another above and press firmly with a hot iron.

For fruit stains, rub the spots with a wet cloth dipped lightly into salts of lemon, and rinse immediately in warm water. More than one application may be needed; with constant rinsing the danger to the textile is minimized. If the salts fade the colors, ammonia water will restore them. Ink stains will disappear under similar treatment.—New York Times.

The Unreasoning Fear of Night Air

The popular superstition that night air is unhealthful is combated in an article in the New York Independent. Medical men are constantly pleading, it says, for more air for the sickroom, and especially at night, but popular tradition still holds its sway and limits ventilation below the point of proper wholesomeness. More than half a century ago a great English physician said that the only pure air at night is the night air, and pure air is the great desideratum in health or illness. Of late there has come the realization that the night air, especially in our large towns, is more wholesome than the day air. For one thing it contains less dust, because there is less movement on the streets to disturb dust accumulations and lift them into the grasp of the winds. How important this matter of dust and its dangers is may be gathered from the fact that in the recent European sanitariums for the treatment of tuberculosis there is a room adjoining the main entrance where patients must remove their walking shoes and don house shoes, and where they must brush their outer clothing, in order to avoid, as far as possible, carrying dust into the living-rooms. Dust is not alone irritation, but it carries with it many living germs, most of them harmless, but some capable of setting up annoying catarrhal conditions if they happen to find a resting-place on already ailing tissues. The unreasoning fear of night air is a relic of days when less rational theories of health and disease prevailed. Sleeping-rooms especially need thorough ventilation, and this is even more important for sufferers whose external respiration is interfered with by reason of pulmonary trouble or whose internal respiration is disturbed because of cardiac affections.

How to Avoid Catching Cold.

A famous English doctor once wrote in the Lancet, "A chilly man is a sick man." If that is true the percentage of invalids in the American public is somewhat appalling. A New York doctor, when asked about his English confrere's statement, laughed, but gave his endorsement.

"Of course, that doesn't mean that every man who feels cold is seriously ill," he said; "but, as a matter of fact, only very exceptional exposure is sufficient excuse for a well man's suffering from cold in any climate to which he is accustomed. If ordinary exposure in this climate can make a person uncomfortably cold, there is something wrong with that person's physical condition or clothing.

"Taking cold isn't a matter of temperature. It is a question of physical condition. Fatigue causes more colds than all the drafts that blow. A draft isn't going to harm a man whose nerves and circulation are in perfect tone. A man goes home, fagged and jaded at the end of the day. He goes to an evening function in dress clothes, takes liberties with his stomach or nerves. He is chilly, takes cold, and swears it was all a matter of temperature or draft. If his blood was pure, his nerves steady and his digestion good, the temperature wouldn't have affected him.

"Quite aside from the problem of what we call colds, the ordinary sensations of cold seldom have an external cause. Their cause is internal. The men and women who go shivering along our streets in winter weather ought not to be cold, unless they have some disease that explains their chilliness. They think they can remedy matters by piling on heavy clothing. It can't be done that way. Naturally, warm clothing will help to offset a low temperature, but it will not make a man warm if there is, as is usually the case, some internal reason why he is cold.

"I believe that fully three-fourths of our people wear too many heavy clothes in cold weather. They feel cold, and the only thing they think of doing is to put on another thickness of flannel. Warm clothing is all right, but heavy clothing isn't, and the close-fitting flannels that are so universally worn are an abomination. They keep the skin from breathing, and the moment the skin gets out of breath, the owner of the skin will be cold, even if he wears flannel and fur a foot thick.

"It seems queer to me that people will never learn or put in practice the simple rules that will insure them comfort in cold weather. Putting aside invalids, we'll take the man who considers himself perfectly well, but who gets blue and shivers on a cold day. His circulation is out of gear. He must find the cause and remove it, if possible. If not, he must offset it as far as he can, by simple and rational means.

"Imperfect digestion may have impoverished his blood. Then he must forswear gastronomic indulgence and eat plain food that will make pure blood. The first plunge into wintry air, out of a warm house, will always make the pores gasp, and drive the blood from the surface to the inner fortresses in the big veins and arteries and around the vital parts of the body; but, if the circulation is good, the reaction will follow almost immediately, and the blood will flow back to the surface with a rush, producing a fine tingling glow.

"In order to bring about this happy condition, a man must take care of his body and encourage his circulation. Pure air, wholesome food, plenty of exercise, frequent bathing and ventilation of the skin, and avoidance of sweltering clothes will put the average man where he can defy any winter weather this climate can furnish. If his nose and fingers do get cold temporarily in extreme cases, they will warm up quickly and general prolonged chilliness will be unknown to him.

"Our houses and offices are too hot. We all know that. So far as possible we should remedy it; but, unfortunately, it isn't always possible, especially in an apartment house or office building. When one can't keep the temperature down to some point between 60° and 70°,—preferably nearer 60° than 70°,—one must grin and bear it, and do what one can to counteract the injury. At least, let the air be pure. Foul air is worse than a draught. Indeed, if a man is in prime condition, a draught ought not to harm him. One great physician of this generation used to turn cold draughts of air on small sections of a patient's body until he got the patient into a condition where he could endure the cold current on his whole body.

"Few persons understand how desperately the skin needs ventilation. A large majority of my patients, I verily believe, do not expose their whole bodies to the air once from September to June. Now, that is ridiculous. It would be suicidal for a person who wasn't used to it to take off all his clothes and loiter around in a room at ordinary temperature, but the thing may be done by degrees, and the body needs an air bath at least once a day if the skin is to do its duty by the blood and nerves. For the same reason the skin must have its daily water bath. I favor the cold plunge for few persons. I think the warm tub bath should be used sparingly, but a sponge bath, followed by vigorous friction, everybody should have once a day. Cold water is preferable, but that, like the air bath, may be a matter of education. Bathe one portion of the body in tepid water, keeping the rest of the body covered. As the shock lessens with habit, bare more of the body at one time. When you are hardened to exposure to air and tepid water, gradually lower the temperature of the water until you are taking a sponge bath in cold water. That word sponge bath is a misnomer. I hate sponges. They are germ and filth carriers. Use your hands, or better, a rough wash rag that will create friction and can be boiled between baths. Don't use one wash rag for a week as some people do. The thoughtless uncleanliness of decent people is beyond my comprehension.

"Take the matter of underwear. That's right in line with the cold cure we are discussing. Nine persons out of ten wear soiled underwear next the skin. I admit that laundry bills would keep many, save plutocrats, from changing every day, which is the ideal course, but at least underwear may be well ventilated between wearings. I advise keeping two suits going at once. Wear a suit one day. Put it where it will be well ventilated in fresh air the next day and don a second suit. Alternate the two suits until both are soiled. Then have a new deal. The rule will be worth money to you—but be sure to hang the suit you are not wearing out in the fresh air. Don't tuck it away in a dark closet.

"While we are talking about underwear, wool is unquestionably more conducive to warmth than anything one can wear, but there is absolutely no sense in wearing flannels as thick as a board. If all wool irritates the skin too much light-weight silk and wool mixture is quite as good. In case a person simply will not wear any wool, silk is the next best thing; but most of the physicians will, I think, agree with me that silk and wool is an excellent underwear mixture. Cotton and linen are good conductors of heat. They take the animal heat which the body produces by great effort and carry it away from the body as fast as it is pumped up. Wool, being a poor conductor, allows the body to preserve its warmth for its own purposes.

"Recently in several northern cities a most sensible plan has been adopted for the policemen. In winter a policeman, instead of putting on woolen underwear a foot thick, wears two full suits of very light weight woolen underwear. The idea is based on scientific fact and has worked most successfully. The two light, loose suits allow the air to circulate freely and make thorough skin ventilation a possibility with greatly increased cold resistance as a result. I myself have adopted the idea and find it admirable. I can't say enough against the clinging, tight-fitting, ribbed underwear that seems so dear to womankind and is sinfully put upon many children. It is opposed to all rules of health and comfort."—N. Y. Sun.

Domestic Hints.

FIG CREAM CANDY.

Ingredients: Two medium-sized cups of granulated sugar, half a cupful of hot water, one teaspoonful of vanilla extract and half a cupful of chopped figs. Stir the sugar into the hot water, put it on the stove and watch until the mixture boils, then let it boil rapidly for three minutes. Remove from the fire, add the vanilla, and beat for several minutes, or until it is creamy. Rub the pieces of fig in powdered sugar, shaking off the surplus, and whip these into the cream. Form into balls and put on waxed or greased paper to cool. These will be less sticky to handle if rolled in powdered sugar before they have thoroughly hardened.

CURRIED RICE CROQUETTES.

Put three-quarters of a cup of milk in a saucepan with butter the size of an egg, let it come to a boil, and stir into it one large cup and a half of rice that has been boiled in salted water twenty minutes. Add a slightly heaping teaspoonful of curry powder, a few drops of onion juice and salt to taste. When it comes to a boil add a beaten egg to it, stir a minute and remove from the fire. Turn it out, let it cool, and then form into cylinders and fry as usual.

ESCALLOPED CHICKEN.

Melt together one tablespoon butter and one tablespoon flour, and add to one pint of milk; boil till thickened, season. Have one pint of chopped chicken in a well-buttered earthen dish and pour the sauce over it. If desired, one tablespoon of chopped parsley may be added. Bake until brown in a very hot oven.

EGGNOG.

Separate the yolk of one egg from the white and beat each very light. Add to the yolk a glass of cold milk, a tablespoon of sugar, a little grated nutmeg, and vanilla to taste. Add the beaten white of the egg and stir as little as possible.

BEEF OMELET.

Chop one pound of raw beef very fine; roll three crackers to a dust and mix with them one-half a teaspoonful of baking powder. Add two well-beaten eggs and mix all together thoroughly with a seasoning of salt, pepper and powdered herbs; put a lump of butter in a baking dish, let it melt and then put in the mixture; let it bake one-half an hour. Turn out on a very hot platter, fold over as you would an omelet, and pour any kind of a meat sauce around it.

GRAHAM PUDDING.

Two cups of graham flour, one cup of milk, one cup of Porto Rico molasses, one cup of raisins stoned and slightly chopped, one egg, one even teaspoonful of soda, one teaspoonful of ground cinnamon, one-half teaspoonful of cloves, a little nutmeg, if liked, and a small pinch of salt. Flour the raisins with a little white flour, mix all the ingredients thoroughly together, butter a mould and steam three hours. Serve with a sauce. If there should be any of the pudding left over, it can be used by cutting in slices half an inch thick, each piece dipped in milk, in which an egg has been stirred, fried brown in a little butter, and served hot with a sauce.

Hints to Housekeepers.

Butter scotch is made by boiling together two cupfuls of sugar, one-half cupful of butter and one-half cupful of water. Test in cold water and when it hardens the candy is ready to be removed from the fire.

The care of brasses may be assisted by the use of a little brass lacquer or shellac that can be bought at any large paint store. Rub the brasses first to the last state of brightness, after which to brush them lightly with the shellac will preserve their polish indefinitely.

Quick cooking and a very little water are the secrets of good cranberry sauce. A small cupful of water to a quart of the berries is sufficient, and ten minutes should cook the fruit enough. Beyond that its bitter flavor is developed. Add the sugar just as the sauce is taken from the stove.

To overcome chronic constipation cultivate the habit of going to the closet and trying to have a bowel movement at a fixed hour every day. After breakfast is the best time. The bowel can be trained to empty itself without the aid of medicines. The neglect to observe a regular time for having a bowel movement is the very commonest cause for constipation.

See that your plants get fresh air whenever it can be given them safely. This means that cold air should be so admitted that it is mixed with the air of the room before it reaches the plants themselves. Give your plants the benefit of light and sunshine if you wish them to do well. Water only when the surface of the soil looks dry. This rule cannot be deviated from with safety by the amateur. The experienced gardener will frequently discover conditions which make it safe for him to vary or modify it, but these the amateur will not discover, and it is not possible to lay down any instructions by which they may be discovered. Over watering does untold harm, as it causes souring of the soil, and brings on decay of the roots. Apply fertilizers only when a plant is growing, for then, and then only, can it make use of them. Begin with a small quantity of whatever fertilizer you use, and increase the amount as the plant increases in growth, being careful not to overdo the matter.

Bran tea, made in the proportion of a pint of bran to three quarts of water, is used by many vegetarians as a foundation for soup. Butter should be used generously with it.

To Steam Apples—Pare and core some good cooking apples, place them in an earthern or granite ware dish that fits in a steamer. Have water boiling in the steamer, set the dish over it, stretch a towel over the top, put on the cover and fold the ends of the towel over it. Steam the apples until tender—about twenty minutes. Take the apples out, measure the juice in the pan, and add to it an equal quantity of sugar, flavor with a little lemon juice, cook until thick, put the apples in a glass dish and pour the syrup over them. It will be a jelly when cold. Serve with cream.

Fashion Notes.

*** The white tulle bow in Alsatian form has found a new perch on the top of the head, with a loop of hair forming the centre finish. This is very becoming to young faces. The same effect is prettily produced again in spreading gauze wings, spangled in lines and fastened in the centre with a crossing rhinestone ornament. One large flower made of Chantilly lace daintily spangled is another pretty hair ornament.

*** One of the new spring materials is a fine zibeline with a slightly hairy surface, and it comes in light colors.

*** Waist lengths of habutai silks embroidered in dainty colors are shown in the shops, and they are a very desirable purchase.

*** Among the newest articles of feminine interest is a chain of alternating links of gun-metal and gold, with a little gun-metal mounted mirror suspended from it. This is a really useful affair now that women are obliged to remove their hats at the theatre. Another fancy of the ultra-fashionable woman is to have the belt buckle, brooch, cuff buttons, pendant and umbrella handle set to match in uncut turquoise, sapphires, amethysts or moonstones.

*** In hosiery there are wonderfully fine silk and lisle hose with incrustations of lace, while others have trailing flowers wrought in the embroidery. An embroidered white fleur-de-lis, combined with a tracing of white lace, characterizes a pair of black silk hose that will be charming worn with toe slippers of velvet, suede or patent leather, while jewels gleam amid lacy meshes on another pair of black silk hose. White silk clock embroidery on black hose is one of the most attractive styles.

*** The extension of the fur season has made it possible to employ fur trimmings even upon the early spring costume; in fact, many of the summer evening wraps show an introduction of sable, mink, chinchilla or silver fox. From the narrow band edging the bottom of the skirt and the front of the jacket there have developed unique applications, such as huge medallions and motifs that were formerly seen only in velvet, satin or lace. The effect is wonderfully smart on fine cloth and velvet, also on heavy silk, and a most novel conception is the Irish crochet robe with the fur motifs let in here and there around the lower part of the skirt and simulating a bolero on the bodice.

*** Black-and-white striped taffeta will be very smart with ruches of black silk. For evening wear a development in white moire would be stylish, showing through a transparent material. Moreen, sateen, muslin, cambric, glace and Swiss taffeta are also adapted to the mode.

*** Cream-white challis flowered with pink roses is a fashionable fabric at present for little girls' dresses; it is capable of much elaboration with lace, ribbon and other dainty garniture. Albatross, Henrietta, velling, crepe, cloth, canvas and wash goods are extensively used for frocks of this style.

The World Beautiful.

Lilian Whiting in Boston Budget.

"We are driven by instinct to live innumerable experiences, which are of no visible value, and which we may revolve through many lives before we shall assimilate or exhaust them. Now there is nothing in nature capricious, or whimsical, or accidental or unsupported. Nature never moves by jumps, but always in steady and supported advances. The implanting of a desire indicates that the gratification of that desire is in the constitution of the creature that feels it; the wish for food, the wish for motion, the wish for sleep, for society, for knowledge, are not random whims, but grounded in the structure of the creature, and meant to be satisfied by food, by motion, by sleep, by society, by knowledge. If there is the desire to live, and in larger sphere, with more knowledge and power, it is because life and knowledge and power are good for us, and we are the natural depositories of these gifts. The love of life is out of all proportion to the value set on a single day, and seems to indicate, like all our other experiences, a conviction of immense resources and possibilities proper to us, on which we have never drawn.

"All the comfort I have found teaches me to confide that I shall not have less in times and places that I do not yet know. I have known admirable persons, without feeling that they exhaust the possibilities of virtue and talent. I have seen what glories of climate, of summer mornings and evenings, of midnight sky,—I have enjoyed the benefits of all this complex machinery of arts and civilization, and its results of comfort. The good Power can easily provide me millions more as good. Shall I hold on with both hands to every paltry possession? All I have seen teaches me to trust the Creator for all I have not seen."—Emerson, on "Immortality."

"The pledge of Immortality is the feeling of immortal desires."—Rev. Dr. O. B. Frothingham

The speculative idea that immortality is an achievement rather than a gift is not new, but whenever it is formulated, as in a recent sermon by Rev. Dr. Parkhurst, it startles many people and arouses antagonism, so far as it is not truly understood. Yet it has its deepest aspects of spiritual truth, and it is the idea constantly, persistently and most impressively taught by St Paul throughout the entire gospels. We are constantly besought to *lay hold* on the eternal life; to press forward toward immortal things; to be renewed in the spirit; to "put on the new man, which after God is created in righteousness and true holiness; to follow Him, who is the Life, the Truth, the Way." The entire teachings of the gospels are one forcible system of active and unfaltering endeavor in the growing achievement of spirituality, which determines Immortality. It is the exact accountant—measure for measure. So much spirituality, so much immortality. Nor does this assertion partake in the slightest degree of the nature of a metaphysical problem, to be comprehended only by the theologian and the philosopher. It is the most simple, clear and direct of propositions. We all accept St. Paul's assertion that flesh and blood cannot inherit the kingdom of heaven. So far as one lives only in the processes of the physical life he is not living the life of those spiritual energies which alone lay hold on immortality. There is a certain degree of intelligent consciousness that is inseparable from this physical life; an intelligence that buys and sells and bargains and calculates on the physical plane, and is sufficient to produce a certain rational status of life. There are not wanting individuals who never rise above this plane. They may, and often do, acquire possessions and even power on the limited plane of the outward life; they may even have some formal and ceremonial religious observances which they mistake for Christianity, but which are the framework, ready and able to inspire them to fill with the spirit, but which, to them, remain empty and dead. The man whose body, simply, occupies his church pew on Sunday, and who on Monday proceeds to cheat his neighbor, is not, we will all agree, the man who has really entered into the true privileges offered by the church. He has not *laid hold* on Immortality. So we see that this lower plane of considerable intelligence and consciousness, related exclusively to the visible and the tangible, must be eliminated from our conceptions of Immortality. There is nothing at all in this that can possibly survive death. John Fiske gives a fine and comprehensive definition of that degree of achievement which is above the level of death when he says:

"In the highest of creatures the Divine immanence has acquired sufficient concentration and steadiness to survive the dissolution of the flesh, and assert an individuality untrammeled by the limitations which in the present life everywhere persistently surround it."

Here we have the initial truth. The acquirement of "sufficient concentration and steadiness to survive the dissolution of the flesh,"—*and* "to assert an individuality untrammeled by the limitations of the present life,"—when man has progressed so far as this then—and then alone—has he *achieved* immortality. He has laid hold on its initial phase. For immortality is infinite beyond conception. It is as infinite as space, and as the idea of God. To have achieved enough of this "concentration and steadiness"—which is merely another phrase for spirituality—to survive death is no more achieving immortality in its wholeness and completeness than learning the alphabet is the achievement of scholarship in its completeness—and it *has* no completeness; it is an endless chain of infinite possibilities, and ever new and ever widening vistas.

But the question recurs just here, is there absolutely no possibility of immortality for him who does not advance beyond a certain conscious and partly automatic intelligence on the physical plane? Does the gate of possibilities, does the door of opportunity close with this brief mortal life? To that question science as well as faith answers "no." The law of Evolution is the law of eternal possibility and opportunity. The spark of immortality—the divine spark, implanted by God, when He made man in His likeness, this is eternal in its nature. [illegible] unquestionably survives death. But [illegible] ity is the result of man's co-operat[illegible] the Divine. God has implan[illegible] spark. He has placed man in an [illegible] ment of discipline and of opportuni[illegible] individual *may be* whatever he [illegible] decides and chooses to be. Not a[illegible] hour, or in a year; not, perhaps, ev[illegible] entire lifetime; but sometime and [illegible] where he who is unfaltering in [illegible] giance to his ideal realizes it at last [illegible] the degree of immediateness and [illegible] with which he realizes it depends [illegible] on the degree of spiritual energy [illegible] brings to bear on his purpose. The [illegible] the potency, the swifter the result.

Ralph Meeker, one of the ablest [illegible] loftiest thinkers of the day, says re[illegible] this recent sermon of Dr. Parkhurst:

"That paragraph from Dr. Parkhurst [illegible] my idea regarding immortality. There must [illegible] master (good) thought or passion. It [illegible] angel with wings that wafts the soul [illegible] man most longed to be in life,—with the truest and best. 'As one thinks, so he shall be' is sound doctrine. All this embodies what I have read of Sappho, who counseled her pupils to cultivate their thoughts and grow, or they would have nothing to carry with them, nothing to make a soul of, nothing to survive the grave.

"I believe that on this idea rests the scheme of life through faith in Christ. As He is the highest, the ideal, the supreme, the soul finds rest in Him, and there grows into a life that death cannot annihilate. In the presence of the great master passion, with the soul thrilling with nobleness, as when dying for another, burned at the stake for righteousness sake, the spirit goes straight to God, into the infinite bosom, an angel fit for only heaven.

"If the soul hungers and thirsts for God it will reach him. If, at the last moment, a man's whole nature cries longingly in faith to Christ,—that will save him, waft him, draw him into the divine abode. And this explains the Christian plan of so-called salvation. Faith in Christ is the master passion, and love the magnet that draws the soul to its own kind. It may be set down as true that vice and sin have no vitality. Wickedness is death. Virtue and love of God are life."

The next paper of this series will continue further discussion of this vital truth, which concerns the life that now is, as well as that which is to come.

The Dewey, Washington, D. C.

Gems of Thought.

----The axe cleaves the wood, but it is largely because of the weight of the poll behind the edge.

----Every right action and true thought sets the seal of its beauty on person and face.—John Ruskin.

----Good wishes are all right as far as they go, but they make very poor building materials for any society.

----As the years passed Darwin became smaller as a man and larger as a scientist.—Rev J. R. Crosser.

----I hold not with the pessimist that all things are ill, nor with the optimist that all things are well. All things are not ill, and all things are not well, but all things shall be well, because this is God's world.—Robert Browning.

----Our praises are the stairway up which our spirits mount in the contemplation of the divine perfection. They are symbols, poor and weak, which reveal to us more clearly and make us feel more deeply the perfect goodness of God.—C. C. Everett.

----Life passes, riches fly away, popularity is fickle, the senses decay, the world changes, friends die. One alone is true to us; one alone can be true; one alone can be all things to us; one alone can supply our need.—J. H. Newman.

----Whether you speak in metaphysical or metaphorical language, in the purest words of inspiration or the grossest images of materialism, the conceptions conveyed by the same word are essentially different, according to the soul which receives them.—F. W. Robertson.

Historical.

——The first permanent settlements of the United States were at Jamestown in Virginia in 1607 and at Plymouth in Massachusetts in 1620.

——The equanimity which attended Washington through life did not forsake him on his deathbed. He submitted to the inevitable stroke with the becoming firmness of a man, the calmness of a philosopher, the resignation and confidence of a Christian. When convinced that his dissolution was near, he requested leave to die without further interruption; then, undressing himself, went tranquilly to bed, and having placed himself in a suitable attitude, soon after closed his eyes with his own hands, and yielded up his spirit without a struggle.

——The Europeans who first visited our shores treated the natives as wild beasts of the forest, which have no property in the forests through which they roam, and therefore planted the standard of their respective masters on the spot where they first landed, and in their names took possession of the country, which they claimed by right of discovery. Previous to any settlement in North America, many titles of this kind were acquired by the English, Dutch, French and Spanish navigators. Slight as these claims were they were afterwards the cause of much dispute and contention between European governments. These contentions arose from the facts of the subjects of different princes laying claim to the same tract of country because both had discovered the same river or promontory; or because the extent of the claims of each party were undefined.

Curious Facts.

——Most spiders have eight eyes, but some species have only six.

——The entire postal revenue of the United States in 1901 reached high-water mark, round numbers $111,000,000.

——A Chinese manuscript in the Paris [illegible] proves that anæsthetics for surgical [illegible] were used in China 1700 years ago.

——Boston has a waterworks that [illegible] over 7,000,000,000 gallons daily, but the [illegible] tion is only 58,000,000, or 116 gallons per [illegible]

——In ancient Egypt guests at a [illegible] were anointed with perfumed oil by [illegible] vants of the establishment as a mark [illegible]

——In Java there is an orchid, the [illegible] tophilum, all the flowers of which open [illegible] as if by the stroke of a fairy wand, and [illegible] all wither together.

——Husbands in Lunenburg, Prussia [illegible] home at eleven o'clock at night, or pay [illegible] about $2.50, half of which goes to the [illegible] who is usually the wife.

——Gifts of a pair of prize cows, a [illegible] and another of potatoes, have been [illegible] response to an appeal for funds on behalf of a Liverpool hospital.

——Moscow has the largest hospital in Europe, with seven thousand beds. There are [illegible] physicians and nine hundred nurses, and about fifteen thousand patients are cared for annually.

——Imagine, if you can, a live-stock train 16[illegible] miles long—numbering 2397 cars and [illegible] 34,785 head of cattle, 38,456 hogs and 22,[illegible] sheep, and you will have some idea of the record-breaking day for receipts at the Union Stock Yards, Chicago, on Wednesday, July 24, 1901. It was the biggest day ever known in the history of this big live-stock mart.

Poetry.

A RHYME FOR ST. VALENTINE'S DAY.

A maiden loved a certain youth
(Who worshipped her, to tell the truth)
Although he dared not tell
The love he knew so well!

But she had wits both keen and fine;
(N. B.) She bought a valentine
Adorned with Cupid's wings,
And hearts and all such things.

Then, mailed the missive to herself!
How Cupid laughed, the tricksy elf,
To see her artful plan
To aid a helpless man!

This done, she sat her down and wrote
Her tongue-tied swain a little note:
"Dear Jack, till you confessed
You loved me, I'd not guessed;

"But since you sent that valentine,
Which said, 'I love you, dear, be mine!'
I'll tell you, frankly, too,
That I have long loved you!"

Who was his rival? Made so bold,
Love's old, old story soon he told,
Through her acute conniving,
The happy end arriving.

So, maids, take heed! Who runs may read!
St. Valentine's a friend indeed.
Make his day the excuse.
It's up to you, the ruse.

MAZIE VIRGINIA CARUTHERS.

Norwich, Ct.

GRANDFATHER'S CIDER.

You can talk about the fluffy, puffy bread as white as snow,
The apple tarts and golden marmalade,
The pumpkin pies of monstrous size all shinin' in a row,
An' various other things that "Mother made";
But, as in vivid retrospection I live once again the past,
There is one thing from me naught can ever take—
It's the pleasant recollection (in its spell it binds me fast)
Of the apple cider Grandad used to make.

I remember—I remember long ago, when life was sweet,
An' we'd gather round the fireplace at night,
As we'd pile the logs on higher, keepin' up a roarin' fire,
An' we all would scrooch up close—my, 'twas a sight!
Then we'd roast a cup of chestnuts, while the old folks told us tales
An' we'd round off with a monstrous chunk o' cake,
Then we'd all look sort of solemn like we orten't, but we did,
Drink the apple cider Grandad used to make.

—Phil H. Armstrong.

DISTRUST.

I.

It is not the mountain, it is not the land;
And it is not the deep, wide sea:
And not the stretch of the desert sand
Can separate you and me,
Sweetheart,
Can separate you and me.

II.

Hands may clasp and tighten and hold,
And heart be pressed to heart,
Yet only shadows the arms enfold,
If souls have grown apart,
Sweetheart,
If souls have grown apart.

III.

Nor yet the gallop of racing horse
Can make the distance wide,
And not the steam or electric force
Can banish us side from side,
Sweetheart,
Can banish us side from side.

IV.

But the cruel thought, the harsh distrust,
The word that biteth sore,
Each from each apart could thrust
So far we could meet no more,
Sweetheart,
In this world never more

—Blanche Nevin, in the Independent.

THE CRYING OF WATER.

O water, voice of my heart, crying in the sand,
All night long crying with a mournful cry,
As I lie and listen, and cannot understand
The voice of my heart in my side or the voice of the sea.
O water, crying for rest, is it I, is it I?
All night long the water is crying to me.

Unresting water, there shall never be rest
Till the last moon droop and the last tide fail,
And the fire of the end begin to burn in the west,
And the heart shall be weary and wonder and cry like the sea,
All life long crying without avail,
As the water all night long is crying to me.

—Arthur Symons.

THOUGHTS.

Two wrestlers on the field of fate,
They strive together, round on round;
What men call deeds of love and hate
Are but their shadows on the ground.
—Winifred Webb, in McClure's Magazine

Forgive us, Lord, our little faith,
And help us all, from morn till e'en,
Still to believe that lot the best
Which is,—not that which might have been.
—George Zabriskie Gray.

Let no man think that sudden in a minute
All is accomplished, and the work is done;—
Though with thine earliest dawn thou shouldst begin it,
Scarce were it ended in thy setting sun.
—Frederic W. H. Myers.

Though Christ a thousand times in Bethlehem be born,
If He's not born in thee, thy soul is still forlorn.
—Johann Scheffler.

Miscellaneous.

When Mehitable Loved.

Her parents handicapped her at the very baptismal font, for the name bestowed upon her, Mehitable Hopkins, was enough to make a spinster of the loveliest girl ever born. When she left school they bore her off to Europe, where, while her five years of travel gave her excellent knowledge of men in the composite, man as an individual was entirely unknown to her. Then followed her father's death and her mother's long years of illness, when all the daughter's thoughts and energies were concentrated on the sick room. Finally, to complete the bands which all her life had been forged to keep her in single blessedness, she found herself at thirty-five with a very comfortable fortune and not a sign of a near relative with whom to share it. So that she hadn't even that questionable excuse of becoming married for the sake of a home.

If Mehitable had been a poor girl she might have proved a genius, for she could paint so cleverly as to make her rivals decidedly uneasy. But now that she found herself a lonely woman, with cruelly plain silver lines over her temples, and no longer any trace of the old-time dimples where the sharp knuckles now showed, her only resource was her palette. One thing she stoutly refused to do, however, and that was to make a workshop of the old family home. She at last hit upon the tiny brown cottage in the next square, where all the surrounding, towering residences looked in heartless disdain on the tumble-down frame house which the owner, a weak-voiced little old man, had clung to desperately in spite of all his fashionable neighbors' scorn and the tempting offers of frantic real estate dealers. The old man had been found dead one morning that summer with the rising sun's rays trying to warm his thin, white cheeks.

Then all the residents on the square sighed in a relieved way, and the shrewd real estate men began to hunt up the heirs with new proposals for the valuable bit of ground, when lo, and behold! It was discovered that the poor, dead owner's will was being contested by a prodigal son and therefore the house would have to remain where it was until the question was settled. Again the fashionable square squirmed and fluttered, for it was evident that no one with any self-respect would want to occupy the innocent cause of all this trouble, while there was the terrible possibility that some sacrilegious laundress might rent the little brown house and mar the whole landscape with her outrageous signs and long lines of flaunting shameless sheets and petticoats.

At this point of suspended hostilities Miss Hopkins conceived the brilliant idea of transforming the disputed property into a temporary studio, to be used until the long legal quibble should end. Whereat the entire neighborhood was enthusiastically grateful.

At last it was finished, and its temporary owner held a reception to the residents of the whole square. They came, one and all, and went away fairly delighted at the result. The low walls had been done in an unbroken gray green, and the floors laid soft and smooth with something a shade darker. The poor, battered woodwork now shone a dark rich red, while the tiny window panes, formerly so pitifully cheap looking, were now voted quaint to a degree. The chintz-covered couches were tantalizingly inviting, and the simple draperies added wonderfully to the artistic whole. And throughout it all there had not been done one thing to mar any of the old house's original charm beyond the necessary nails and braces to steady the poor little wreck.

For the first time in her life Miss Hetty had time to be really happy, and the big family house up on the corner rarely knew her except when she crept back there at dusk to her solitary state dinner, and the undisturbed night's rest in the big, quiet chamber on the second floor. Canvases seemed fairly to fly from beneath her tireless fingers, and pretty soon everybody came to recognize her works because of the inevitable old man, with a thin, pale face, who always stood out against the background of the old, slanting brown house. When she one day showed the last things she had done the whole square tip-toed, wet-eyed, out into the street again, with many a penitent promise never again to speak ill of the battered little house and its erstwhile owner. For Miss Hetty's masterpiece pictured the dead, quiet face, there in the early sun, with the shadows of the morning-glory vines across his high, lined forehead, and with one huge, rosy blossom trailing in at the open casement as though trying to lend some of its beautiful warmth to the wasted, patient cheek beyond.

"Now that I have so many, I think I shall try to sell them, for the orphan asylum on the next street is in sad need of money, I hear. But I think I'll not paint him any more," she added, softly, "for he's dead now, you know." And poor, fond, foolish little Miss Hetty sobbed quietly as she laid her trembling hand tenderly on the beloved canvas.

It was that same evening that Mrs. Wilmarth brought her brother, Major Doane, to see the little collection.

Mrs. Wilmarth lived just across the street from the big Hopkins house, and Miss Hetty had always found a good deal of comfort in the bright, busy young matron. She had heard of the Major's intended visit with no little interest, for she remembered him as a tall, handsome boy with a hint of a small brown moustache and a pair of bonny brown eyes. He had kissed her, then a white-frocked little maid of ten, as he went off to don his first gray coat at West Point. Some way the tiny, wide eyed girl never quite forget the beautiful, manly boy, although she had never seen him since, as their schools and travels had contrived to keep them apart. But she remembered very well that when she was a sweet girl graduate she was confiding in maiden shyness to her dearest friend her ideal husband, when that friend laughed gayly and cried:

"Why, how funny! You've been describing young Captain Doane, who was here visiting his sister, Mrs. Wilmarth, only last week."

Poor Hetty blushed as red as though she had been really guilty, and now that the famous, digfied Major Doane had actually come to see her, tiny Miss Hetty grew pink to the tips of her little ears, until Mrs. Wilmarth found herself wondering if it could be possible that Miss Hopkins were really pretty after all. While the clear-eyed matron watched the delighted hostess and her big, handsome brother, and they quite forgot her over their tea cups and the famous pictures, a sudden new light came into her eyes, and the match-making spirit inherent in every happily married woman quietly began its dexterous work.

Things went on famously. It was the Major who advised that the collection of paintings be kept for a time and exhibited one day in the week for the benefit of the orphans. When Miss Hetty shrinkingly demurred he pointed out that the children would be the gainers in the end, so she relented. That winter found the whole neighborhood in the throes of an extravagant social whirl, for there was an unusual number of pink-and-white debutantes, with the still more unusual accompaniment of handsome, eligible men. Before she knew it Miss Hopkins found herself in the very midst of the mad jollity, even laying aside her all-black gowns for those with hints of violet about the throat and wrists. No tea was quite perfect without the dear little artist's presence; no girl felt quite satisfied if she had not had a chat with Miss Hopkins between the dances, and even the broad-shouldered, fresh-voiced boys liked to creep into the softly-shaded little studio to accompany its owner home at dusk. Her Monday afternoons grew famous, and the orphans on the corner had enough new shoes and quilts and real puddings for Sunday dinners to make them everlastingly grateful to the happy hearts in the tiny brown house on the next street.

Miss Hopkins always had the prettiest girls in town to pour on these occasions, and generally some one with a really good voice or an unusually skillful touch on the violin could be found to make music. Then, too, the pictures themselves could bear repeated visits, for the poor, sweet old man grew very dear to them all now that he was not there in flesh to trouble them. Furthermore, it was almost as good as going to confession to creep up stilly and gently before the last of them all, where Miss Hopkins always kept a bunch of fresh violets standing beneath the sweet little canvas with its live morning glories and its sleeping man.

And the best thing of it all to little Miss Hetty was the Major, a tall, courtly major, who was so attentive to her and seemed to enjoy being with her more than any man in all her life had done. When a woman waits till she is thirty-six before she loves, the result is going to be terrible in its intensity. Mrs. Wilmarth saw it and trembled, excepting for the fact that her brother seemed to see no one else but Miss Hetty, except, of course, the girls,—all that season's buds, who flocked about the Major because he was so different from ordinary men. Miss Hetty knew it and held her breath. The boys and girls saw it and smiled gleefully. In fact, everybody seemed to recognize it except the man himself, who went blindly on, heaping poor, fluttering Miss Hetty with compliments, and making open love to all the young girls who gave him his tea and sat in open-eyed admiration as he related his thrilling stories of army life on the Western plains.

But at last even the Major knew it, and his great, manly heart fell like lead. It was one blustering evening late in the winter, and that mighty military man was tramping valiantly along the street on his way to Mrs. Wilmarth's. But as he passed the little brown cottage he noticed the light within, and turning up the uneven board walk, he rang the old-fashioned bell bravely, for the puzzled Major had all at once made a mighty resolve, and when he once decided to do a thing he never retreated, whether it was to take an enemy's camp or to brave a woman.

Strange to say, he found Miss Hetty alone there in the warm, rosy little room, with its queer. old china, glistening silver, odd pictures and rich russet-bound books. The tiny little hostess saw the determination in her caller's face, and sank into her deep chair, knitting her thin, beautifully kept fingers together in desperate hope and fear.

The Major refused the proffered tea almost gruffly, thrust his hands into his pockets, tried another chair, and finally strode across to the tiny bow window, and, with his back bravely turned toward her, he began:

"My dear—friend, I—er—I want to ask you something tonight,—I feel that we have known each other well enough for me not to be afraid now. My dear Miss—Miss Hetty," and he wheeled about, facing her so abruptly that she almost gasped, "tell me honestly, as though you were speaking for yourself—tell me, am I too old to marry?"

She had been hoping for it for months, but when it came she felt the little brown house rock cruelly. The open fire, against which her great, handsome Major was outlined like a magnificent rock of refuge, swam before her, and her own voice seemed miles away when she finally found courage to answer:

"We love with our hearts, Major, and our hearts never grow old."

She saw the fine, strong face beam and he came to her, very close, it seemed to her, although she could not have put out her hand and touched him, and the soft lamplight fell on his beautiful silver hair like a holy benediction. Immediately her thoughts went back to that far-off day of long ago, when this same hair was heavy and brown and he had kissed her.

Then his voice recalled her to the present and she heard him say:

"You can never know how glad you have made me by saying that, for there is no woman in the world whose opinion I value more. Still in all my doubt this winter I have often feared that it would be wrong for me to take unto me a wife. I have maybe only a very few years yet to live," he added, looking at her appealingly. And again she answered softly:

"We may hope that your years may be many. Besides, even the few years will be very dear to—to your wife."

He was standing back of her chair now, with one hand so near that she felt its touch on her hair.

"Do you think," he pleaded almost in a whisper, "that she loves me?"

"Do you love her?" came the reply, with a touch of coquetry never absent from the feminine heart.

"Better than all else in the world," came the brave rejoinder; "better, I sometimes think, than the world to come."

"Then," and she closed her eyes to hide the happiness in them, "then I may confess that she loves you, better, far better than she ever before thought it possible for any one to love."

The Major sprang from his place behind her, and, seizing her hands, cried joyfully:

"Oh, my dear Miss Hetty, how do you know? Has she told you? When? Tell me just what she said, so that I may be the happiest proudest man on earth."

All the light burned out of Miss Hetty's face; leaving only the ashes of hopeless despair. Then she asked:

"She? Who?"

"Why, Kittie Harper, of course. You surely know that I meant her?"

Kittie Harper, the gayest little black-eyed debutante that had danced that season and the foremost of the flattering coquettes that had practiced their budding blandishments on the gallant old Major.

"Yes, of course, I knew, but you see I wanted to make you confess," she replied at last, with a laugh that would have wakened any more sane man. Then she went frantically on in reply to the unsuspicious man's eager questions.

"No, she never really told me—but—but I know when a woman loves."

All this time the elated Major was putting on his coat and gloves, and at last he asked, with a return of his old-time courtliness:

"I want to thank you, Miss Hetty, for you have done me the greatest favor woman ever did man. It is old-fashioned now, I know, but both of us are old enough to remember, are we not, when a gentleman showed his respect and homage to a lady by kissing her hand?"

Without a word she extended her poor, trembling little hand and he laid his lips reverently to her cold fingers. But she could keep in no longer, and the startled Major heard first a stifled sigh, then a moan, and at last a great, cruel sob rose to her pale, quivering lips and Miss Hetty had betrayed herself.

Major Doane staggered back and his face grew terribly white.

"I beg your forgiveness a thousand times, madam," he said at last in a strange, low voice, "I never dreamed until this instant—"

But Miss Hetty sat bolt upright in her high-backed chair, clutching the carved lion heads on its arms, and raised to him her poor, hurt eyes, wild with desperate appeal.

"Will you please go, Major Doane? And as for dreaming—you are mistaken; for there is nothing to dream." Then she rose from her deep chair, still holding the lion's heads till her nails bit into the hard polish, and said:

"And please tell—Kittie that Miss Hetty sends her—her blessing."

He closed the door behind him as gently as though there were some one dead in the little brown cottage.

The fire on the shallow grate had died to a low, even glow when Miss Hetty finally stirred from the high-backed chair and took from its place the dear little painting of the dead owner of the house which now sheltered her. Propping it up on the low table in front of her, she set the violets beneath, and then knelt down before it, bending her tired little head to her quivering hands. The last ember on the fire turned black, the light in the rosy-shaded lamp burned lower and lower, and finally flickered out. The servants up at the big house felt no apprehension at the non-appearance of its mistress, as she had told them she would spend the night with a friend further down the block. The hours crept on, the storm racked the little brown cottage, and dawn revealed the crooked old steps drifted high with snow.

They found her that morning, with the dim light falling icily on her tiny gray face. Just above was the canvas with the other dead eyes and lips, but there was no gleam like the morning glories in the sweet, pathetic, fragrant loneliness of the violets on which the silent woman's weary cheek tersed.—Chicago News.

Brilliants.

In the hour of trial,
Jesu, plead for me.
Lest, by base denial,
I depart from Thee.
—James Montgomery.

Every task, however simple, sets the soul that does it free;
Every deed of love and mercy done to man is done to Me. —Henry Van Dyke.

There is an order in our daily life,
Like that the holy angels constant keep;
And though its outward show seems but a strife,
There dwells within a peace like oceans deep.
—Jones Very.

Then bear a joy where joy is not,
Go, speak a kindly work in love,
Less bitter make some loveless lot,
Now earth is linked to heaven above.
—Frederick G. Lee.

Youth's Department.

"THE MOON! THE MOON!"

O foolish baby! what,—"the moon?"
Life's vainest longing waked so soon?
Your ball is round, your bells are bright.
Both close to touch as well as sight.
The moon's a great cold, empty thing;
It will not bounce, it will not ring.
For ages it has hung on high,
To tempt poor bye-low babes to cry.
Go bye-low, baby; close your eye,
What, whimpering to the same old tune—
"The moon! the moon!"

O wisest babe, to want the moon!
Life's subtlest lessons learned so soon!
When sawdust dolls and trampled toys
Have shattered all our baby joys,—
Unspoiled, unbroken, unattained,
By feverish fingers unprofaned,
The lovely moon still swings on high,
That self-respecting babes may cry.
It keeps us looking to the sky,
When we have pricked our last balloon—
The moon, the moon!
—Louise B. Edwards, in Independent.

Buying a Baby.

It would have done your heart good if you could have seen little Anna Great Bear that eventful morning. Her squaw mamma had rolled up the little pappoose in her buckskin wrappings, giving her an extra breakfast of sofki, tied her into the reed cradle after regular Wichita fashion, and set the bundle up against a couple of trees that grew conveniently near together. Then she had betaken herself on a three-mile walk to the post, where she meant to buy some cotton cloth and a box of tobacco. Anna Great Bear was only six months old; but she was quite used to being left in this summary manner, or perhaps put aside conveniently on a shelf or strung up, cradle and all, to the branch of a tree, that she might be safely out of the way while her elders were having a dance or a feast. It never entered her small brain that babies are sometimes expected to cry, if they are not the centre of attention. Anna Great Bear had never been rocked to sleep unless by the gentle breezes, never heard a cradle lullaby unless carolled by the birds. She went comfortably asleep before her mother reached the main road; and, when she waked up and found herself still alone, she merely blinked with her bright, round eyes above the edge of her tiny blanket, as if she found life interesting at least, if not amusing.

Agnes Henshaw and Mabel Eustis drove over in the poney cart that morning from the post where their fathers were stationed. Colonel Eustis had received orders to start to Washington on an important commission, which might keep him there three or four months. So he had decided to take Mrs. Eustis and Mabel with him, giving them a chance to visit Mabel's grandmother in her Massachusetts home while he was attending to his official business.

This was a fine opportunity to send presents to home friends in the East; and the girls had started early, hoping to find not only some pretty baskets and quill work, but perhaps also one of the buckskin tunics, richly embroidered and befringed, which the squaws were sometimes induced to sell for a generous consideration. They wanted one that had never been worn, and had not yet secured it, in spite of repeated requests. As they drove leisurely along over the prarie, they talked of the coming separation and of the good times awaiting Mabel.

"But fancy whatever I am to do without you here!" moaned Agnes, dolefully. "There isn't another girl of my age at the post; and either I must put up my hair and take an interest in Ruskin, so that Miss Davis will talk to me sometimes or else I must shorten my dresses still more and run round with Tom and Harry Butts. I'd rather go with the boys, on the whole, if they'll have me, tiresome little creatures!"

"It's a shame," said Mabel, sympathetically; "but think how you'll get on with your practicing and your Christmas work!"

"Oh, bother the practicing! Don't try to comfort me that way, as if things weren't bad enough already!" The girls laughed, for music was not the continual solace and refuge to Agnes that Mabel found it.

When they came near the Indian village, they tied the pony and sought the basket makers and embroiderers. They were fortunate enough to catch a woman just beginning the final row of adornment on a frock or jacket, or whatever one calls the outside garment of these squaws, and secured a solemn promise that before the close of the week it should be sent to the post for Miss Mabel. Then they picked out nearly a dozen of the prettiest baskets, and started back through the trees to the place where they had left the pony cart.

Suddenly Mabel's eye was caught by the funny picture of Anna Great Bear, propped up against the tree. "It gave me a perfect shock," she said tragically, "to see it staring right straight at me." And she stopped to look at it.

"Oh, the darling!" exclaimed Agnes. "See its lovely eyes and its dear little fat cheeks and its funny little mouth!"

They patted the baby gently, and talked baby talk, while Anna Great Bear gazed solemnly back at them, and seemed absolutely unmoved by their presence.

"O Mabel," said Agnes, after they had admired and exclaimed and laughed and praised the baby to their heart's content, "if I only had that baby at home to amuse me, I shouldn't be a bit lonesome all the time you are gone."

"You could dress and play with it just like a doll, couldn't you? Indian babies never howl and yell the way those Dwight kids do at the post. I never could see why their mother need be so stingy with them, anyway, could you? When Indian babies wake up, they just blink till they get sleepy again," she added sagely.

"Oh, I do wish I had it," went on Agnes, enthusiastically. "I know mother wouldn't mind; and, evidently, its own people care nothing about it whatever. Let's go over to the hut, and see who owns it."

But there was nobody in the hut, and the girls easily made up their minds that the baby had been intentionally deserted. "You see," explained Agnes, convincingly, "of course, no woman would leave her baby right near to the path unless she wanted somebody to take it. If we carry it to the post, we shall probably save its life."

So they packed the baskets carefully in the back of the pony cart, and made room in front for the funny little bundle. Baby Anna Great Bear made no protests, and was not even surprised at the sudden change in its fortunes.

They had not proceeded far before they met a young Indian smoking his pipe and carrying a bag of grain over his shoulder. The girls stopped him, and showed him the baby.

"What you think?" queried Agnes, trying hard to be honest, "Squaw give me baby? See, me give money. You honest Indian? Give squaw money for baby?"

The Indian nodded understandingly. "Squaw my sister," he said confidently. "She no want pappoose. She like money better than pappoose. Me give her money!" and he nodded again.

The bargain was soon concluded. Agnes counted out a dollar and a quarter in change and gave it to the Indian with repeated charges to be sure to give it to the mother, and then added ten cents for himself, which he accepted eagerly.

The girls drove triumphantly homeward as fast as they could, partly because they were eager for the fun of untying the baby and giving it "a truly American bath," and partly because they were afraid the child might be hungry, not knowing how recently it had been fed.

"You poor little dumpling," murmured Agnes, bending over it, while Mabel drove. "Did its naughty old uncle sell it for a dollar and a quarter? Bad old uncle! Baby be happy now. Yes, it shall!"

"What can you feed it with, Agnes?" asked Mabel, practically.

"Oh, there's plenty of milk and hominy," rejoined Agnes, blithely. "That is what most of them get; and, besides, I've seen old Hetty fix sofki for her grandchildren scores of times. It's nothing but flour and water, with some Indian herbs mixed in."

The girls agreed to say nothing about the baby until they had it washed and dressed in an old baby dress of Mabel's sister; and so Agnes slipped up the side way and went to her own room, seeing none of the family on the way and quite indifferent as to whether any of the soldiers around the post had happened to see the newcomer or not. When Mabel had given the pony in charge of a boy, she went to the kitchen for warm milk, and took it hastily to Agnes's room. There they fed the baby the first thing, enjoying the operation greatly and patiently wiping up the milk they spilled in the operation. Then they decided that it would never do to bathe the baby immediately after a full meal, especially as the little thing promptly closed its pretty eyes and apparently settled itself down for another slumber.

General Henshaw was talking over some important matters with Colonel Eustis relating to the latter's trip to Washington, when he heard a scuffle and a sound of excited talking outside his window. He stepped to the door.

"What is it, Jackson?" he asked. "There seems to be something the matter."

"It's nothing but a crazy Indian woman," answered the man. "I've done my best to make her clear out, but she keeps saying she wants to see you, sir; and she says somebody's got her baby, and she wants you to do justice about it."

General Henshaw was a kind-hearted man; but he was deeply engaged in the business on hand, so it is hardly to be wondered at that he spoke a little shortly at first. "Can't a woman look after her own baby without coming to the post for a nurse? Find out what she wants, and send her away." And he turned to go back to his work.

"She says Lawson told her he saw Miss Agnes go into your house with an Indian baby only an hour or two ago, and maybe that's the one, sir," continued the man, respectfully.

Then the general sent an orderly to tell Miss Agnes that he wished to see her. The young man appeared at the house just as she and Mabel were deciding that it wasn't in nature for any infant to sleep so long as did the Indian stray. They started in surprise as the maid brought up the summons; but, before they could obey it, another step was heard on the stairs, and an Indian woman pushed her way in past the girl, who started back in astonishment.

Not a word did the woman speak, as she cast her eyes quickly around the room. Seeing the baby still in the cradle of reeds and apparently undisturbed, she strode forward, caught the cradle by the handles, slung it over her shoulder by the straps, and left the room as abruptly as she had entered it, muttering something the girls could not understand. They looked at each other in consternation, then hurried, half frightened, half ashamed, after her. She waved them off indignantly, and soon had shaken the dust of the post from her feet and was moving rapidly homeward.

The girls heard the whole story later,—how Long Back, the uncle, had known well enough that the little pappoose wasn't for sale, and that he was the one who had so speedily set the mother on the right track to bring back the missing treasure. Agnes was not reconciled for a long time, but the day brought solid good fortune to little Anna Great Bear. Mrs. Henshaw and Agnes went over in the pony cart to see her often. Her mother became very gracious, as Mrs. Henshaw explained that Agnes did not mean to do mischief; and she seemed to thoroughly enjoy scolding about her mischievous brother who had sold the baby and then kept the money for himself. He always thought it was a very clever thing on his part, and would doubtless have sold Anna Great Bear a dozen times over if he had been lucky enough to get the chance.

Agnes never forgot her baby, Anna Great Bear; and when Anna grew up, and was big enough to go to a famous school in the East, it was she who helped make the neat dresses and aprons, and who taught Anna to braid the pretty dark hair and tie it with gay ribbons. And Anna always liked to hear the story told how once Miss Agnes had tried to buy her for a dollar and a quarter. "But I love my own mother best," she used to add to it at the close; and then Miss Agnes would smile, and say: "Yes, yes; you can't break girls of that trick. They always love their own mothers best."—Christian Register.

Notes and Queries.

THE LOCOMOTIVE INDUSTRY.—"R. W. C.": According to the Railroad Gazette the total output of the eight locomotive-building companies of the country, representing fifteen plants for the year 1901 was 3384. This is 231, or 7.3 per cent. more than in 1900, and the record. The output from 1890 to 1900 follow: 1890, 2240; 1891, 2865; 1892, 2012; 1893, 2011; 1894, 695; 1895, 1101; 1896, 1175; 1897, 1251; 1898, 1875; 1899, 2473; 1900, 3153. Less than ten per cent. of the locomotives built last year were for export, as against about sixteen per cent. in 1900. Missouri Pacific and Big Four have each ordered twenty-five engines from Brooks. Lackawanna is having twenty locomotives built at the Cooke works. Choctaw has ordered sixty locomotives from Baldwin, instead of fifty, as previously reported.

KHAKI.—"A. R. W." asks: Whence is the word khaki derived? The word khaki, now generally applied to both the material and color of the uniforms used in the tropics, is of Persian origin. Khaki, in that language, signifies "dust." From this the Persian adjective khaki, dust colored, is derived. Both words, borrowed from the Persian, occur also in the chief idiom of northern India, where the native soldiers apply them to the dust color of their uniforms. The word khaki refers to the color only, but erroneously it came to be used also as a designation of the material.

DESCENDANTS OF NAPOLEON.—"R. W. H.," Holyoke, asks for the names and lines of descent of the brothers and sisters of the great Napoleon. Who is the present Napoleonic pretender to the throne of France, and what is his line of descent? Napoleon's only legitimate child was the King of Rome, who died in 1832. His eldest brother, Joseph, had no sons; Lucien left four sons; Charles, Louis Lucien, Pierre, Antoine. Of these, Charles, who died in 1857, left three sons, Joseph, died 1865, Lucien, Cardinal Bonaparte, died 1895, and Charles died 1899. Louis Lucien left no sons; Pierre, who died in 1881, feft Roland, who married the daughter of M. Blanc, the proprietor of Monte Carlo; he is interested in oceanography. The last of Lucien's sons, Antoine, left no sons. Louis, Napoleon's second younger brother, had a son, Napoleon III., died 1873, who left a son, the Prince Imperial killed in Zululand in 1879. Napoleon's youngest brother, Jerome, had two sons. Jerome, died 1847, and Napoleon, died 1891. The latter was known as "Plonplon"; he left two sons, Victor, born in 1862, and recognized as the head of the family; and Louis, a general in the Russian army. By the laws of primogeniture the head of the family is Prince Roland Bonaparte, as he represents the second brother of Napoleon, while Victor represents the fourth.

THE IVORY MARKET.—"R. W. C.": Our ivory supply, according to the annual reports just issued, continues to show signs of a steady decrease, the total quantity imported last year being only 232 tons, against 272 tons in the preceding year, and an average annual importation of 232½ tons since 1889, so that, naturally, there has been a good demand at higher prices. In the face of the continued small receipts, prospects are described as being decidedly favorable,—that is, from the seller's point of view. East Indian cut points suitable for billiard balls realized, as usual, the highest price, selling up to £85 10s. per hundredweight, against £75 last year. The west coast of Africa was the only centre that shipped us more ivory last year than during 1900, but still the 108¾ tons received thence are below the average quantity—112 tons—shipped during the last four years. The quantity received from the Cape was extremely small, only three-quarters of a ton, while last year no ivory came to us through that port. One may say that Cape ivory is a thing of the past, for even before the present war the country had been so thoroughly explored that the big game formerly to be met within those districts had either been exterminated or gone further north, and their ivory, if still obtainable, must now be shipped through the more northern ports. This makes one wonder where we shall draw our supply of ivory from when Africa is denuded of elephants, which at the present rate of progress must soon occur. Would it be feasible to reserve an area large enough to allow the wild elephants to wander about and breed, undisturbed by the hunter, until the time arrives to obtain their tusks?

....Try always to see clearly that right is right and wrong is wrong. Remember in speaking to any one that you want to help, the more earnest and unconscious of self you are, the better you will help them. Probably the words you think most telling will affect them least, while those you think nothing of, God will use for their good. Leave all results to God—T. T. Carter.

....We are apt to mistake our vocation in looking out of the way for occasions to exercise great and rare virtues, and by stepping over the ordinary ones which lie directly in the road before us. When we read, we fancy we could be martyrs and when we come to act, we cannot bear a provoking word.—Hannah Moore.

Home Dressmaking

Hints by May Manton.

4054 SEAMLESS CORSET COVER, 12 TO 16 YRS.

4058. Seven-Gored Skirt, 22 to 30 Waist.

Misses' Seamless Corset Cover. No. 4054.

To be Made With or Without Added Basque Portion.

The corset cover is cut entirely without seams and is therefore simple and easy of construction. The neck, arm-eyes and lower edges are simply turned up on the right side and finished with beading stitched at each edge, the lace frills being whipped on by hand. When the basque extension is desired it is seamed to the waist and the joining is concealed by beading applied over the seam. The front edges are hemmed and supplied with buttons and buttonholes.

To cut this corset cover for a miss of 14 years of age, 1 yard of material 36 inches wide will be required, with 3¾ yards of beading, and 4 yards of lace to trim as illustrated.

The pattern, 4054, is cut in sizes for misses of 12, 14 and 16 years of age.

Woman's Seven-Gored Tucked Skirt with Hip Yoke. No. 4058.

Tucks of all widths, arranged in every possible way, run rampant upon all the latest gowns and make a marked feature of advance models. This graceful example has the additional advantage of the fashionable hip yoke, and is well adapted to all soft-finished, light-weight fabrics, foulards, crepe de chine, crepe ninon, veiling, challie and all the lovely cotton materials; but in the original is of white louisine silk with yoke and applique of cream lace.

The skirt is cut in seven gores, then tucked at front and sides, the tucks concealing the seams and producing a flounce effect by being stitched with corticelli silk in graduated lengths and falling free at the requisite distance from the lower edge. The back is tucked for a short distance and laid in deep inverted plaits that provide fullness below. The carefully fitted yoke is joined to the upper edge, so avoiding all unnecessary bulk about the waist, while the gores render it possible to obtain the desired slender effect with the fashionable flare at the foot.

To cut this skirt for a woman of medium size 9½ yards of material 27 inches wide, 8¼ yards 32 inches wide or 8 yards 44 inches wide will be required.

The pattern, 4058, is cut in sizes for a 22, 24, 26, 28 and 30-inch waist measure.

4055. Misses' Five-Gored Skirt, 12 to 16 years.

4057. Child's French Dress, 4 to 10 years

Misses' Five-Gored Tucked Skirt. No. 4055.

The skirt is cut in five gores, so providing ample fullness at the lower edge without unnecessary bulk about the hips. The tucks conceal all seams, and are stitched in graduated lengths with corticelli silk that they may give a flounce effect where they fall free. Two gathered ruffles are set on the lower edge, which enhance the desirable flare and fluffy effect. The extra fullness at the back is laid in inverted plaits under the tucks, or it may be gathered if so preferred.

To cut this skirt for a miss of 14 years of age 5¼ yards of material 21 inches wide, 4¼ yards 27 inches wide, 4¾ yards 32 inches wide, or 3¼ yards 44 inches wide will be required, with 1⅞ yards 21 inches wide, 1¼ yards 27 inches wide, 1¼ yards 32 inches wide, or ¾ yard 44 inches wide for two frills, 3 inches wide, 7¼ yards of applique to trim as illustrated.

The pattern, 4055, is cut in sizes for misses of 12, 14 and 16 years of age.

Child's French Dress. No. 4057.

The foundation for the waist is a smoothly fitted lining that closes with it, at the centre back. On to this lining are faced the yoke and fancy front, and over it are arranged the full front and backs. The skirt is simply straight, tucked at the lower edge and gathered at the upper where it is seamed to the waist. The sleeves are in bishop style with narrow cuffs and at the neck is a standing collar. A ribbon sash is worn over the seam that joins the skirt and waist.

To cut this dress for a child of years of age, 5⅝ yards of material 21 inches wide, 4½ yards 27 inches wide, 4¼ yards 32 inches wide, or 3½ yards 44 inches wide will be required, with ⅝ yard of inserted tucking for yoke and front, 9 yards of edging and 6 yards of insertion to trim as illustrated.

The pattern, 4057, is cut in sizes for children of 4, 6, 8 and 10 years of age.

4056. Shirt Waist, 32 to 40 Bust.

4059. Woman's Wrapper, 32 to 42 Bust.

Woman's Blouse or Shirt Waist. No. 4056.

To be Made With or Without the Fitted Lining.

The lining is snugly fitted, and closes at the centre front. The back proper is laid in three backward-turning tucks at each side of the centre, that are stitched for its entire length, but each front includes two deep tucks, that extend to yoke depth, and are finished with double rows of stitching in Corticelli silk. The right front laps over the left in double-breasted style, and is held by means of buttons and buttonholes. The sleeves are in shirt style, with cuffs that are buttoned over at the outside, and at the neck is a regulation stock.

To cut this waist for a woman of medium size 4½ yards of material 21 inches wide, 3¾ yards 27 inches wide, 3¾ yards 32 inches wide or 2½ yards 44 inches wide will be required.

The pattern, 4056, is cut in sizes for a 32, 34, 36, 38 and 40-inch bust measure.

Woman's Wrapper. No. 4059.

To be Made With or Without Fitted Front Lining.

Tasteful, becoming morning gowns are essential to making a good appearance as well as to comfort. The attractive model given has the merit of being absolutely simple at the same time that it is becoming and entirely satisfactory. The original is made of dull blue batiste, dotted with black, and is trimmed with bands of plain blue, stitched with corticelli silk, but all washable fabrics are suitable, as well as challie, cashmere, albatross and the like.

The wrapper is cut with a fitted back and loose front, that can be arranged over the fitted lining or attached to the edge of the yoke as preferred. The yoke is pointed, and provides a smooth fit across the shoulders without detracting from the comfort of the gown. The sleeves are in bishop style, with deep cuffs pointed at the upper edge, and at the neck is a standing collar. The skirt portion is cut to flare freely at the feet, and finished with a graduated circular flounce, seamed to the lower edge.

To cut this wrapper for a woman of medium size 11 yards of material 27 inches wide, 10 yards 32 inches wide or 8½ yards 44 inches wide will be required.

The pattern, 4959, is cut in sizes for a 32, 34, 36, 38, 40 and 42-inch bust measure.

The Horse.

Beautiful Bells (2.29 1-2).

Sixty years ago few horsemen took the trouble to inquire about the blood lines of a trotter. If the animal had speed, endurance and gameness it was all they wanted to know. Only a few years ago it was considered sufficient for a well-posted breeder to know the blood lines of successful performers. At the present time the progressive, up-to-date breeder of trotting stock is interested to learn the characteristics of the ancestors of record breakers as well as their blood lines.

The importance of selecting good mares for brood purposes was never so fully appreciated by the most successful breeders of light-harness speed as at the present time. There are some who believe that the success of a brood mare as a speed producer depends nearly if not quite as much upon her individual qualities as upon the combination of blood lines found in her pedigree. An examination of the individual qualities of famous brood mares that are bred in different lines will show that their individual traits, and those of their ancestors, were very much alike in some respects. The one quality for which they have nearly all been noted is energy.

Beautiful Bells, whose likeness appears in our frontispiece, stands at the head of all brood mares as a producer of trotters that have taken records in standard time. This likeness was reproduced from one that recently appeared in a California magazine called the Sunset, one of the most beautifully illustrated publications that come to our desk. Beautiful Bells is black in color with an elongated star in forehead, and off hind ankle white. She is a well-proportioned animal, and her height at the withers when in her prime was 15.2 hands. She was bred by L. J. Rose, then of Sunny Slope, California, and foaled in 1872. Her sire was The Moor, a horse that took a trotting record of 2.37 and died when but eight years old. He got only 51 foals in all. Six of these 51 trotted to records of 2.30 or better. Three of the 51 are found in the Great Table of sires of standard performers. Eleven of the daughters of The Moor, have produced 25 trotters and one pacer that have taken records in standard time.

The Moor was got by Clay Pilot, he by Neave's Cassius M. Clay Jr., he by Cassius M. Clay, and he by old Henry Clay, founder of the Clay family of trotters. The dam of The Moor was Belle of Wabash (trotting record 2.40). Belle of Wabash is registered in Bruce's American Stud Book as thoroughbred. Her sire was Bassinger, and he was by Lieut. Bassinger, a son of imported Fylde.

The dam of Beautiful Bells was the great brood mare Minnehaha, and she produced eight trotters that are credited with records of 2.30 or better. Four of her sons have sired 2.30 speed, and her daughters have produced sixteen standard performers, all trotters except one.

Minnehaha was by Stevens' Bald Chief, and he was got by Bay Chief. The latter was by Mambrino Chief, out of a very highly bred mare by Keokak, son of imported Truffle, and is credited with trotting a half-mile in 1.08 as a four-year-old. Bay Chief was foaled in 1859, and died in February, 1865, from the effects of gunshot wounds received in a skirmish with a band of guerillas, by whom Bay Chief and Alexander's Abdallah were captured. The latter died shortly afterwards from lung fever.

The Moor and Minnehaha were both purchased from Mr. George C. Stevens of Milwaukee, Wis. Both were very highly esteemed by Mr. Rose. He once said of them: "The Moor and Minnehaha each founded a family, and although I have had many stallions, and bred from the best of their day, yet have never found one whose offspring were so uniformly trotters as The Moor and his descendants, with each generation an improvement on the preceding one.

"Minnehaha was described as 'small but very neat,' and her pedigree was remarkably fine for her day, or, for that matter, for today. When she grew up to be a three-year-old, she was a long, low mare, very beautiful, and with an excess of nervous energy, so much, in fact, that without restraint she would go faster and faster, and never stop as long as there was life and power of exertion."

About this time Mr. Rose hired a somewhat reckless young man for a trainer, who laid in an almost unlimited supply of boots. Mr. Rose once gave the following account of the characteristics of Minnehaha and Beautiful Bells in connection with the energetic trainer:

"We were a strong team at training yet Minnehaha, in spite of both of us, would trot anyway. But in time the boots gave out. It began to dawn, too, upon my mind that perhaps some other trainer might get along with less boots, and I hired another young fellow who had a 'little knowledge,' but an immense amount of energy. I sent him to the ranch to get up Minnehaha.

"As soon as he got her to the barn he harnessed her to a cart, and she being able to trot fast and willing, he sampled her, much to his satisfaction. The mare, of course, was entirely unfit for such a Gilpin rattle as he gave her, for she had been out on pasture for six months. The result was a lameness, from which she never recovered. She was bred to The Moor and produced Beautiful Bells, that remarkable daughter of a remarkable mother.

"Beautiful Bells was a wonderful filly, beautiful in form, being a very queen, whether walking or trotting, and as true, honest and fast a trotter as a two-year-old as I ever bred. The quality of honest, square trotting without breaking was her peculiarity to a marked degree. By this time I had another trainer with experience, but none with colts, and had all the belief that colt trotting was very injurious. He saw that she was a remarkable filly, but to work her was always under protest and hurt him. At last his time was put in by petting her, saving her from all hard work or work at all, and when others were driving on the track to keep everything away from her to prevent from exciting her.

"She soon took in the situation like any other spoiled child, and became wilful and notional, and would go when she felt like it or not, as her inclination prompted. Going from the score she got in the habit of breaking, and by letting her have her own way about it, the habit became fixed, and nothing would ever make her change in that respect, nor would she catch, but would jump up and down to an aggravating extent, until every other horse would be a hundred yards away; then she would trot true and fast, and if she made a break it would only be a skip. As a five-year-old she won six races out of seven, but all were of six or seven heats each. She had so much endurance and speed that in time she would tire everything out and in the end win.

"She was a hard trial for the judges, for she would keep a field at the post by her breaking as long as the judges would stand her capers in that line. The following year she had to go into a faster class, and could not give away a hundred yards and then win. Of course, it was very disgusting to me to know that she had the capacity of winning, yet by her contrary action would get distanced or lose every race. Being disgusted, I traded her off for mining stock, out of which I never realized a cent, yet this losing her entirely, although at the time a sore reflection, was in the end very fortunate. 'All for the best.' Had she not been spoiled, but trotted true, she would have sold for $10,000."

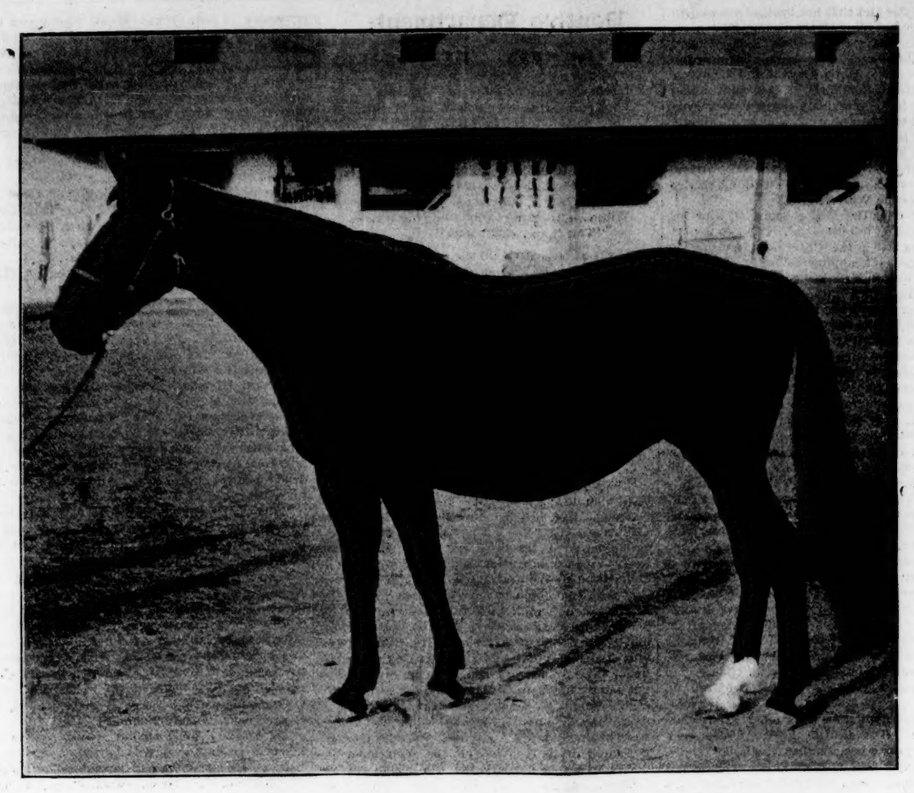
"I would have sold her, and she would have spent her life as a racing and driving animal. As it was, the man who traded for her got disgusted with her after a short trial at racing, and bred her to Electioneer. His mining enterprises turning out bad prevented his having the means of keeping her. Governor Stanford, to save his service and pasture bill, was forced to buy her, and he got her for about $1500 or less. This gave her the opportunity. Electioneer and Marvin did the trick to make her the greatest young mare in America, and I believe her produce would bring more money at auction today than the produce of any mare in the world."

It was some twelve or fifteen years ago that Mr. Rose expressed his views in regard to Minnehaha, The Moor and Beautiful Bells. Since then several of the descendants of Beautiful Bells have held world's champion trotting records. Beautiful Bells made her record, 2.29½, in 1878. Was mated with Electioneer in 1879, and produced her first foal, Hinda Rose, Feb. 27, 1880. From that time until May 18, 1897, she produced a foal every year, making eighteen in all. Three of her foals have held the world's champion trotting yearling record, viz., Hinda Rose (1 (2.36½), Bell Bird (1) (2.26¼) and Adbell (1) (2.23). The record of Adbell still remains the best ever made by a yearling trotter. All three of these juvenile record breakers were got by Electioneer. A list of her produce follows:

Year Foaled	Name	Sire	Record
1880	Hinda Rose	Electioneer	2.19½
1881	Alta Belle	"	
1882	St. Bel	"	2.24½
1883	Rosemont	Piedmont	
1884	Chimes	Electioneer	2.30¾
1885	Bell Boy	"	2.19¼
1886	Palo Alto Bell	"	2.22½
1887	Bow Bells	"	2.19¼
1888	Electric Bell	"	
1889	Bellflower	"	2.12¾
1890	Bell Bird	"	2.22
1891	Bell Sire	"	2.21¼
1892	Day Bell	Palo Alto	
1893	Adbell	Advertiser	2.23
1894	Bells Beauty	Electricity	
1895	Adebel	Advertiser	
1896	Vesper Bells	"	
1897	Monbells	Mendocino	2.23¾

Ten of the foals produced by this wonderful mare have taken records from 2.19¼ to 2.24½, and another that came within a fraction of a second of landing in the 2.30 list, Chimes, has already sired two that hold world's champion trotting records, viz., The Abbot (2.03¼), the fastest trotting gelding yet produced, and Fantasy (2.06), whose three-year-old record, 2.08¾, has never been equaled by a trotter of that age. The foals of Beautiful Bells were evenly divided as to sex—nine colts and nine fillies. Eight of her nine sons have already sired animals that have taken records in standard time. It is too early yet to expect standard performers by her youngest son, Monbels, as he was not foaled until 1897. Two of her daughters, Alta Belle and Rosemont, have produced standard performers, the former one and the latter three.

Beautiful Bells (2.29½), the queen of brood mares, is still alive at Palo Alto, and will be tenderly cared for until she breathes her last. Her fastest yearling trotter was by Advertiser (2.15½), a son of Electioneer, but her foals by Electioneer seem on the whole to have been superior as to speed to those by other sires. Green Mountain Maid, the dam of Electioneer, was in some respects much like Beautiful Bells. She was a born trotter, but of such a nervous temperament that she was never trained for speed, in fact, was never broken to harness. She was harnessed once, but ran away, and after that no attempt was made to break her. She was not so large as Beautiful Bells. Her height at the withers was only fifteen hands. As Minnehaha stood only 14.3, it will not be surprising if quite a proportion of the get of the sons of Electioneer and Beautiful Bells are not above the average of horses in size, unless care is used in the selection of mares that are mated with them.



THE WORLD'S CHAMPION PRODUCER OF TROTTERS, BEAUTIFUL BELLS, 2.29 1-2.

Veterinary Department.

Questions and Answers.

Roadite: I have noticed in road horses that have been track-worked a tendency to knuckle over in their hind ankles, especially if going on a slow jog over a rough place. I am driving a young mare now that had a little track work last spring and road work regularly since, and at times she will let down when jogging slowly in her hind ankles, stumble behind, as it were. She was in very nice shape when track-worked, but had sore heels and I stopped her work. What is the cause and the remedy for the knuckling?

Answer: The condition that you refer to, as is often the case where a horse suffers from cracked heels, is that he assumes that knuckling position to relieve the pain from the soreness in the heels. Send for a box of my Cutineal, which will positively cure the trouble if used as directed. If the knuckling is the result of a weakness about the ankle joints, repeated blisterings will relieve the soreness, and with a long rest will strengthen the parts, especially in a young animal.

E. S. W.: I have a five-year-old colt which had a severe attack of distemper last summer. It lasted late into the fall, leaving him very thin in flesh and with a dry, hacking cough. His legs swell considerably, and he still coughs some. He has a constant habit of eating his bedding if he can get at it. Although he has wonderfully improved in flesh this winter, he still has the cough, and his legs swell. His appetite seems good. Just at present he has a bad case of scratches, and I am using your Cutineal and they are improving. Will you please prescribe for him?

Answer: As there is a remnant of the old distemper lingering about him, you must take some measures to rid the system of the poisonous element, which is the cause of the cough and swelling of the limbs. I would suggest that you try the following: Powdered bi-chromate potass., one dram; water, one quart. Give him one-half ounce on his tongue morning and night until you have improved his condition. In the meantime apply some good liniment to his throat two or three times a week to help relieve the irritation. Persevere in this treatment and he will come out all right. Do not let him eat his bedding, and, to prevent that, put a muzzle on. His scratches will not thoroughly heal until you improve his condition.

J. R. Mc.: I have a five-year-old gelding who cannot swallow very well. He does not eat well and scarcely drinks enough water to keep him alive. I examined his mouth and his teeth seem all right, but there are little pimples way back on his tongue and also on the sides of his mouth. He coughs violently. I have been syringing his mouth with alum water and a solution of peroxide of hydrogen, and gave him internally Codine, Fowler's solution and pine tar, in a mixture, but he does not seem to improve or have more thirst. He is dull but seems all right otherwise. Any advice you may give will be thankfully received.

Answer: I should think it was a case that required an examination by a competent veterinary surgeon, as it would be difficult for me to make a correct diagnosis at long range. If the trouble was canker it would have yielded to your treatment. If you cannot obtain the services of a veterinary surgeon try blistering his throat from ear to ear to relieve the soreness and inflammation. It will do no harm and the chances are in favor of relief.

T. E. M.: Please prescribe for a horse that has had small blotches break out on him, mostly on his shoulders and some on his sides. They itch and irritate him, do not discharge, but run together some.

Answer: To improve his general condition try the following: Powdered bichromate potass. one dram; water, one quart. Give him one-half ounce on his tongue morning and night for one month. Bathe the shoulders, etc., with a solution of sulphuret of potassium, two drams to a gallon of water. Use this once or twice a day.

Answer to Correspondent.

FOAL WHERE BRED?—D. S.: If a mare owned in Vermont is sent to the stallion Action in Massachusetts and served to him, and the mare is returned to Vermont and has her colt in the latter State, is the product a Vermont or Massachusetts-bred colt? Will it make any difference if the mare is Vermont bred herself, and will it make any difference if the stallion is registered or not? Please give your reasons for the way you decide the question.

Answer: We believe that it was decided several years ago by the National Association of Trotting Horse Breeders that a foal is bred where the dam is mated with the sire. We know it was so decided by The New England Trotting Horse Breeders Association when that organization was first formed, and this we believe to be the correct conclusion. Bred is a perfect participle of the active verb breed. One definition of the verb given by Webster is beget. The sire begets the foal at the time of mating, and it follows that the foal is bred or begotten at the place where the mating is effected. Some writers have taken a different view, and claim that the foal is bred where the mare is kept while nourishing the fœtus. This does not seem to us to be a logical conclusion. Take, for instance, a case like the following: Let a mare be mated with McKinney (2.11¼) in California. Shortly after being mated let her be sold to some one in Utah, and sent to the purchaser. After keeping her a few weeks let the Utah purchaser sell her to some one in Illinois, and let her be sent to that State. After remaining there a few weeks let an Ohio horseman who happens along take a fancy to her, buy her and take her home with him. In the course of a month or two let a New York gentleman who sees her in Ohio fancy her enough to buy her and take her to New York State. Finally let an Austrian gentleman, who sees her in New York, buy her and ship her to his home, where she has a foal. Now if a foal be bred where the mare is kept during the period of conception, the one in question would be bred in California, in Utah, in Nebraska, in Illinois, in Ohio, in New York, on shipboard and in Austria. In case that a foal were bred where the mare was kept during the period of conception who would be the breeder of the foal? The several owners of the mare, of course. That is illogical, and not only so, but would render it very difficult to find the breeder and get evidence sufficient to warrant the registration of the foals. Another class have claimed that a foal is bred where the dam gives birth to it. In that case some foals have been bred in a moving car on a railway train. In that case, too, the breeder must be either the man who owned the mare at the time, or the agent who had charge of her, and this, too, is absurd. Men who have charge of stallions keep books and make entries in these books when mares are bred. These entries show by whom the mares are owned and managed, and if properly kept also show by what stallion the mares were got. In this way it is a comparatively easy matter to learn the pedigrees of animals, when it is known in what year they were foaled and by what sire they were got. The foal by Arion (2.07¼) was bred, that is, begotten, in Massachusetts. In the early days of the New England Trotting Horse Breeders Association two sets of stakes were offered. One was for foals bred in New England, the other for foals wherever bred. When a member of the association sent his mare to Kentucky, or even to New York State, to be mated with a stallion there, the produce was not eligible to stakes for New England-bred foals.

A. H. Moone, a well and favorably known newspaper man of Providence, has been appointed secretary of the Narragansett Park Association. Mr. Moone has been on the staff of the Providence Journal for the past three years and is interested in horses. President Perkins says that he is confident that he has secured the right man for the place.

Stick a pin in it. You buy the sample bale for your horse. German Peat Moss will do the rest. Write to C. B. Barrett, Importer, Boston, for circular.